

MOLTKE'S MISSION COMMAND PHILOSOPHY IN THE
TWENTY-FIRST CENTURY: FALLACY OR VERITY?

A thesis presented to the Faculty of the U.S. Army
Command and General Staff College in partial
fulfillment of the requirements for the
degree

MASTER OF MILITARY ART AND SCIENCE
Military History

by

GUNTER ROSSEELS, MAJOR, BELGIAN ARMY
B.S., Belgian Military Academy, Brussels, Belgium, 1993

Fort Leavenworth, Kansas
2012-01

Approved for public release; distribution is unlimited.

REPORT DOCUMENTATION PAGE				Form Approved OMB No. 0704-0188	
Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing this collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to Department of Defense, Washington Headquarters Services, Directorate for Information Operations and Reports (0704-0188), 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number. PLEASE DO NOT RETURN YOUR FORM TO THE ABOVE ADDRESS.					
1. REPORT DATE (DD-MM-YYYY) 08-06-2012		2. REPORT TYPE Master's Thesis		3. DATES COVERED (From - To) AUG 2011 – JUN 2012	
4. TITLE AND SUBTITLE Moltke's Command Philosophy in the Twenty-first Century: Fallacy or Verity?				5a. CONTRACT NUMBER	
				5b. GRANT NUMBER	
				5c. PROGRAM ELEMENT NUMBER	
6. AUTHOR(S) Gunter Rosseels, Major, Belgian Army				5d. PROJECT NUMBER	
				5e. TASK NUMBER	
				5f. WORK UNIT NUMBER	
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) U.S. Army Command and General Staff College ATTN: ATZL-SWD-GD Fort Leavenworth, KS 66027-2301				8. PERFORMING ORG REPORT NUMBER	
9. SPONSORING / MONITORING AGENCY NAME(S) AND ADDRESS(ES)				10. SPONSOR/MONITOR'S ACRONYM(S)	
				11. SPONSOR/MONITOR'S REPORT NUMBER(S)	
12. DISTRIBUTION / AVAILABILITY STATEMENT Approved for Public Release; Distribution is Unlimited					
13. SUPPLEMENTARY NOTES					
14. ABSTRACT In the aftermath of World War II, many Western armies studied the German <i>Blitzkrieg</i> success. They concluded that the German mission command philosophy was a cornerstone to lead and command troops in fluid and uncertain combat situations. This resulted in the integration of mission command philosophy or <i>Auftragstaktik</i> in several Western armies' doctrine. Among those armies, the US Army defines mission command as a command philosophy and as a warfighting function, which integrates the other warfighting functions. Historically, Field Marshal Helmuth von Moltke, Chief of Staff of the Prussian Army between 1857 and 1888, was the first military leader to recognize that one commanding officer from a central position on the battlefield could no longer direct military formations. He understood that the operational environment, including new technologies, imposed a different command philosophy on strategic, operational and tactical level, based on a clear mission statement and intent. He adopted this command method successfully in his campaigns against Austria in 1866 and France in 1870-71. Consequently, the Prussian/German education model became a paradigm for most Western armies. Contemporary operations require the same adaptive and flexible leaders to face the circumstances of the current battle space and to achieve mission success. This thesis researches the historical circumstances that shaped the mission command philosophy and studies its validity in contemporary doctrine.					
15. SUBJECT TERMS Mission Command, Helmuth von Moltke, decentralized command, factors influencing command					
16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT	18. NUMBER OF PAGES	19a. NAME OF RESPONSIBLE PERSON
a. REPORT (U)	b. ABSTRACT (U)	c. THIS PAGE (U)			19b. PHONE NUMBER (include area code)
			(U)	119	

Standard Form 298 (Rev. 8-98)
Prescribed by ANSI Std. Z39.18

MASTER OF MILITARY ART AND SCIENCE

THESIS APPROVAL PAGE

Name of Candidate: Major Gunter Rosseels, Belgian Army

Thesis Title: Moltke's Command Philosophy in the Twenty-first Century: Fallacy or Verity? A Study in the Employment of Mission Command Philosophy in Contemporary Doctrine

Approved by:

_____, Thesis Committee Chair
Jonathan M. House, Ph.D.

_____, Member
Gary B. Cordes, M.S.

_____, Member
Kenneth J. Riggins, M.S.

Accepted this 8th day of June 2012 by:

_____, Director, Graduate Degree Programs
Robert F. Baumann, Ph.D.

The opinions and conclusions expressed herein are those of the student author and do not necessarily represent the views of the U.S. Army Command and General Staff College or any other governmental agency. (References to this study should include the foregoing statement.)

ABSTRACT

MOLTKE'S COMMAND PHILOSOPHY IN THE TWENTY-FIRST CENTURY: FALLACY OR VERITY? A STUDY IN THE EMPLOYMENT OF MOLTKE'S MISSION COMMAND PHILOSOPHY IN CONTEMPORARY OPERATIONS, by Major Gunter Rosseels, Belgian Army, 119 pages.

In the aftermath of World War II, many Western armies studied the German *Blitzkrieg* success. They concluded that the German mission command philosophy was a cornerstone to lead and command troops in fluid and uncertain combat situations. This resulted in the integration of mission command philosophy or *Auftragstaktik* in several Western armies' doctrine. Among those armies, the US Army defines mission command as a command philosophy and as a warfighting function, which integrates the other warfighting functions.

Historically, Field Marshal Helmuth von Moltke, Chief of Staff of the Prussian Army between 1857 and 1888, was the first military leader to recognize that one commanding officer from a central position on the battlefield could no longer direct military formations. He understood that the operational environment, including new technologies, imposed a different command philosophy on strategic, operational and tactical level, based on a clear mission statement and intent. He adopted this command method successfully in his campaigns against Austria in 1866 and France in 1870-71. Consequently, the Prussian/German education model became a paradigm for most Western armies.

Contemporary operations require the same adaptive and flexible leaders to face the circumstances of the current battle space and to achieve mission success. This thesis researches the historical circumstances that shaped the mission command philosophy and studies its validity in contemporary doctrine.

ACKNOWLEDGMENTS

I would like to express my gratitude to several people in the writing of my thesis. First, I would like to thank the members of my committee for their efforts to focus and clarify my writing, especially Dr. House, who acted in a mission command style during my work. He provided me trust and guidance during my search, and inspired me to finish my work. I also want to thank Mr. Cordes, my staff group advisor, with whom I had extensive discussions on mission command philosophy and who had to listen to my critical questioning. Mr. Riggins' Leadership classes provided me sufficient knowledge to frame mission command within the leadership philosophy of the US Army.

I owe many thanks to my fellow classmates Major Allen Kehoe and Major Bradley Nelson for giving me inside information in the US Army and improving my personal leadership vision on commanding in battle conditions.

I also want to thank Belgian Colonel Steyaert, Commander of the Land Component Competence Centre who supported my application for participating at the Intermediate Level Education program of the US Army. Without him, I would not have had the opportunity to study my profession from another point of view.

Finally, many thanks go to my spouse Irena. Her love for me, the patience she demonstrated and the support to this undertaking provided me strength to continue. She ensures that I have a home to come to rest after an intensive work period.

TABLE OF CONTENTS

	Page
MASTER OF MILITARY ART AND SCIENCE THESIS APPROVAL PAGE	iii
ABSTRACT.....	iv
ACKNOWLEDGMENTS	v
TABLE OF CONTENTS.....	vi
ACRONYMS	viii
ILLUSTRATIONS	ix
CHAPTER 1 INTRODUCTION	1
Doctrinal background	1
Defining mission command philosophy	3
Complexity of war and Clausewitz’ trinity.....	4
Current operational environment	6
Requirements to lead troop in combat	9
Assumptions and limitations.....	11
CHAPTER 2 PRUSSIAN ARMY IN THE NINETEENTH CENTURY	13
Introduction.....	13
Rebuilding the Prussian Army	14
Roots for mission command: The Military Genius	19
Transforming the Prussian Army.....	22
Conclusion	27
CHAPTER 3 HELMUTH VON MOLTKE’S MISSION COMMAND	30
Introduction.....	30
Learning lessons in Denmark.....	31
Confirmation at <i>Königgrätz</i>	34
Preparation	35
Performance	38
Outcome	43
The Helmuth von Moltke command model	45
The role of the commander	46
The role of a staff	49
Influence of technology	50
Tactical preparations	51

Moltke's legacy.....	52
The paradigm army: the German army in 1940.....	53
Conclusion	56
CHAPTER 4 APPLICATION OF MISSION COMMAND IN MODERN ARMIES.....	61
Introduction.....	61
Theoretical framework.....	62
Interpretation of mission command in Western armies	65
United States Army doctrine.....	65
British Armed Forces doctrine.....	68
French doctrine	70
Belgian doctrine	72
Factors that influence mission command philosophy	74
The civil-military relationship	75
The political-military relation	77
The nature of contemporary operations	79
The influence of technology	81
Conclusion	82
CHAPTER 5 CONCLUSIONS AND RECOMMENDATIONS	87
Conclusions and relevance.....	87
Recommendations.....	90
GLOSSARY	94
APPENDIX A HELMUTH VON MOLTKE " <i>DER GROSSE SCHWEIGER</i> ": BIOGRAPHY	98
APPENDIX B STRATEGIC AND OPERATIONAL SITUATION OF PRUSSIA IN 1866.....	102
APPENDIX C EXAMPLES OF GENERAL DIRECTIVES GIVEN TO CORPS COMMANDERS	103
BIBLIOGRAPHY	104
INITIAL DISTRIBUTION LIST	109

ACRONYMS

ADP	Army doctrine publication
ADRP	Army doctrine reference publications
FM	Field Manual
JP	Joint Publication
NATO	North Atlantic Treaty Organization
TAM	Tactical Manual
US	United States

ILLUSTRATIONS

	Page
Figure 1. Clausewitz' Paradoxical Trinity	6
Figure 2. The Military Genius Model	22
Figure 3. The advance of the Prussian Army to Königgrätz.....	38
Figure 4. The Battle at Königgrätz: Situation and Plan on July 3, 1866	42
Figure 5. From Adoption to Adaption and Praxis: The Increasing Gap.....	64

Gentlemen, I demand that your divisions completely cross the German borders, completely cross the Belgian borders and completely cross the river Meuse. I don't care how you do it, that's completely up to you.

—*Oberst* Kurt Zeitzler, Chief of Staff *Panzergruppe* Kleist, 13 May 1940

CHAPTER 1

INTRODUCTION

The components of war—mobilization of human resources, discipline, weapons, tactics, strategy, and much else, the issues they raise, and the problems they pose—are timeless. But the forms they take and the social context that does much to shape them are always changing.

—Peter Paret, *The Cognitive Challenge of War—Prussia 1806*

Doctrinal background

In 2009, as a member of one of the transformation implementation teams, I wrote the new Belgian tactical manual for the employment of the Belgian medium infantry company and the guide describing the tactical estimate and decision process on company level.¹ During the development of this tactical manual I consulted current and former battalion commanders, operation officers, company commanders, and colleagues, and most of them insisted on integrating the concept of “Mission Command” within the new doctrine on tactical estimate. The first research brought me to the conceptual definition used in North Atlantic Treaty Organization (NATO) publications and guidelines from Colonel Dominique Vindevogel, Commander of the Belgian Center of Competence for the Land Component (CC LAND), dated 2004. This document provided the foundations for integrating mission command within Belgian infantry doctrine in order to meet the challenges of current operational environment.

The amount of literature and doctrinal writings published in the Anglo-Saxon environment provides a significant amount of information to study the elements of mission command. The United States Army incorporates mission command extensively in its doctrine, and as a paradigm army for most of the Western countries, it became my

reference point to extend my research. Although the US Army's doctrine evolved as a result of the interventions during the previous years, mission command remained a key factor within that army. Other armed forces, like the German *Bundeswehr*, Canadian Armed Forces, British Forces and Israel Defense Forces, are also strong believers of this concept, but do not go as much into detail as US doctrinal publications.

Each of those armies approached the mission command concept differently, which resulted in various implementations and interpretations. Those differences probably relate to cultural differences, operational experience and divergent interpretations of historical events, literature and theorists. Moreover, those differences will be discussed in chapter 4 of this document. Nevertheless, the reference point for mission command of those armies remains Field Marshal Helmuth von Moltke, often referred to as Moltke the Elder. Moltke's innovative application of military theory influenced warfare for more than a century, and military leaders and theorists even today quote him frequently. Annex A of this study provides a more extensive biography of Moltke.

So, why do we still need to study mission command philosophy if so much information already exists? One of the first challenges is to provide a common definition of mission command and its principles. As mentioned, there exist different definitions and interpretations, and therefore, a historical overview of circumstances and principles can help to understand and frame the concept. Furthermore, literature that studies Moltke's *Auftragstaktik* or mission command principles and their validity within current operational environment remains limited.

In summary, current military commanders must ask themselves the following questions: Which were the basic command principles and premises established in the nineteenth century, and what is their validity in contemporary doctrine and operations? Which factors influence mission command philosophy? Furthermore, if military leaders consider mission command so important when conducting military tasks in the current environment, why is mission command not always used? In other words, what are the conditions for successful mission command? Can we establish such principles in the current environment?

Defining mission command philosophy

Before studying the philosophy and concept of mission command itself, this paragraph will analyze and define the elements composing mission command, namely mission and command. First, I define a mission as the action a commander expects from his subordinate commanders to execute in order to achieve certain result. Command, on the other hand, is the authority that a commander in the armed forces lawfully exercises over subordinates by virtue of rank or assignment.² These two elements relate to each other. Indeed, a commander uses his authority to provide directions to his subordinates with regard to the subordinate's tasks. Above that, to assure the execution of the tasks or mission, he exercises this authority according to his personality. Military organizations are essentially commander-centric, so command method constitutes an important element of the relationship between the superior and subordinate, so a commander's personal characteristics influence that command style. However, most Western military organizations promote a certain method to exercise that authority, namely through a mission command philosophy.

For clarity within this study, I will initially use the US doctrinal definition of the mission command philosophy and develop it through a historical perspective.

[Mission command is] the exercise of authority and direction by the commander using mission orders to enable disciplined initiative within the commander's intent to empower agile and adaptive leaders in the conduct of unified land operations.³

Hence, mission command is a method to achieve a certain goal. It comprises two specified elements: a clear intent or purpose which a subordinate must reach in order to assure alignment to the overarching goal, and the decentralized execution with freedom to act by subordinate commanders. In other words, a commander expresses to his subordinates what to achieve, within the framework of the overarching mission, yet he refrains himself to articulate to those subordinates how to be successful. The ultimate goal of mission command is to achieve an effective, high speed execution of an order in a complex set of circumstances during war time situations.

Complexity of war and Clausewitz' trinity

Several current and prominent leaders often opine that armed forces operate in complex circumstances. However this statement appears true, doesn't every era encounters its set of difficulties and multifaceted circumstances? Commanding the French Army at the beginning of the nineteenth century in a campaign through Europe, attacking the beaches of Normandy in 1944, or assaulting Iwo Jima in 1945 can hardly be called simple. Beyond that, the conditions under which war occurs, encompass a certain degree of complexity due to the nature of it. Sun Tsu recognized the complicated relationships that surround war. He argues that war is an act of man in which moral

strength and intellectual talent are decisive, war has to be part of actions designed to win a higher strategy, and that national unity is an essential requirement.⁴

In the nineteenth century, Clausewitz provides an analytical tool, called the paradoxical trinity, to understand the complicated wartime relationship between armed forces, the government and civilian society. Even though psychology was merely an emerging science in the nineteenth century, the author identifies three human components influencing the evolution and outcome of war: emotion (passion), opportunism (change and probability), and reason.⁵ Emotion motivates people to fight or to denounce the use of violence, whereas reason set out the goals and the necessity of actions. Change and probability guides the emotions to reach the objectives.

These three tendencies correspond to three groups in society: the people, the government and the military.⁶ The strength of a psychological component within a specific group and the continuous interaction between those groups influence the strategy of war. Indeed, public opinion shows sensibility to what happens to their country. Moreover, patriotism feeds itself on emotions, like love and passion to one's country, and is not created on rational arguments. In relation to this, the government sets the goals based upon their political agenda and the electorate they represent. The military constitute the more stable element in this triangular relationship, as it has to arrange the chaotic circumstances of war. The events that occurred during March 2004 in Madrid demonstrate this volatile interaction. Spain was actively involved in the Iraq mission as a loyal strategic partner to the US. The terrorist attacks on a commuter train resulting in 191 dead changed public opinion and policy drastically. The public was shocked and

elected a new government that pulled Spanish troops from Iraq and denounced further support for the US action there.⁷

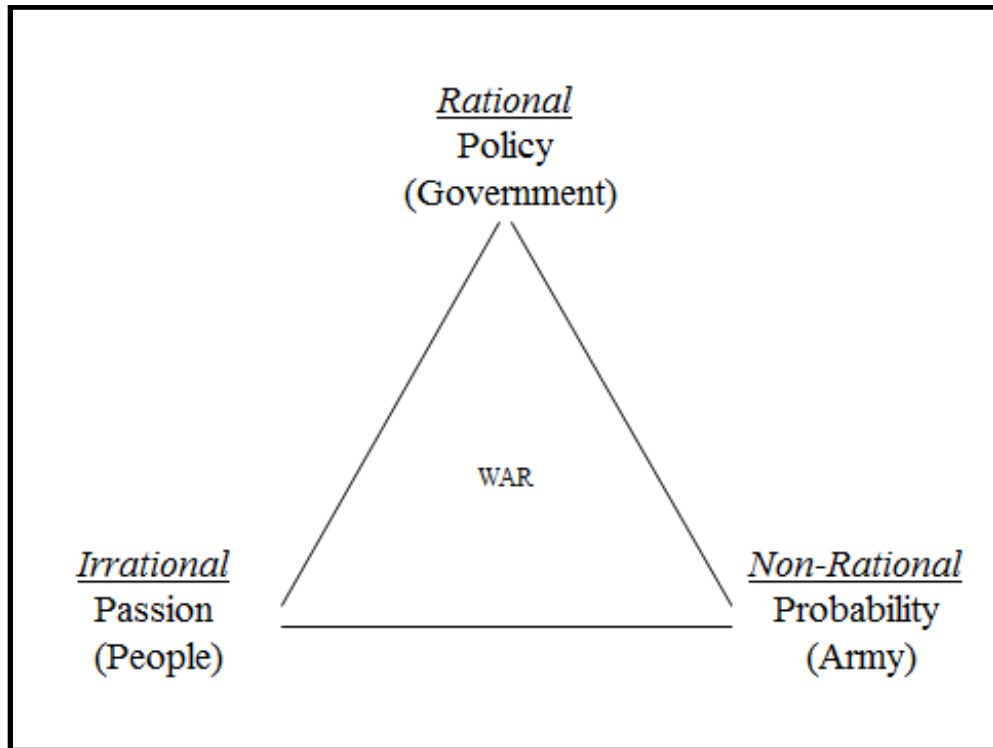


Figure 1. Clausewitz' Paradoxical Trinity

Source: Drawing by author of this thesis based on lessons during Intermediate Level Education Class 12-01 from the history curriculum and based on readings in Carl von Clausewitz, *On War*, ed. and trans. by Michael Howard and Peter Paret (Princeton, NJ: Princeton University Press, 1976), 89.

Current operational environment

For military analysis and decisions, the trinity does not provide a useful tool, therefore military use a different method to study and analyze the operational environment. The seven variables as described in the operational process provide an

instrument to analyze information, collect data and understand the current operational environment. The variables consist of the political, military, economic, social, information, infrastructure, physical environment and time.⁸

The political variable describes the power and responsibilities at all levels of host nation government in which military forces operate. Between 1945 and 2003, the United States, Great Britain, France, China and Russia/Union of Soviet Socialist Republics conducted one hundred and twenty six military interventions involving forces larger than five hundred soldiers. In 48 percent of these interventions, the target consisted of a non-state actor or insurgent movements undermining a regular government. Moreover, in almost 60 percent of the cases, the five major powers intervened in countries with a political aim directly related to a host nation situation. Those aims consisted in maintaining regime authority, removing a foreign regime, changing policy, protecting social order.⁹ Examples of a dysfunctional or non-existent government include Somalia, Kosovo, Vietnam, and Afghanistan.

As for the military variable, the opponent in the last twenty years varied from conventional organized forces to insurgent groups. This threat is called a hybrid threat, and today's soldier of today must possess the capabilities to fight conventional warfare and insurgents, while integrating the civilian impact on its operations.¹⁰ These highly demanding requirements impose stress on a soldier's training and fighting capabilities, as the enemy is not always easy to identify.

The economical variable consists of integrating general economic categories such as energy, raw materials, labor, food distribution, consumption patterns, investments, etc. Economic circumstances and availability of or access to resources provide incentives for

stable and peaceful community region or country. Several African countries such as the Democratic Republic of Congo, Zimbabwe, Central African Republic, and Sudan illustrate that the lack of economic prosperity reduces the ability of the state to operate.

The society's structure influences the area of operations in which military forces operate. People within a social structure share the same political authority, occupy a common territory, have a common culture and share a sense of identity.¹¹ Military operations occur in areas where tribal adherence and religious hegemony strongly determine the way the country operates. For example, Libya consists of more than 100 tribes, and in Lebanon the composition of the government reflects three religious backgrounds. Insurgents try to rally support within those structures and can try to influence opinion.

Furthermore, the information variable involves the collection, access, use, manipulation, rapid distribution and reliance on data, media and knowledge systems.¹² Opponents try to reduce public access to open media while broadcasting their own message. The technological evolution created a high speed communication spread around the globe. On the other hand, the military information campaign focuses on countering that message at the same time as influencing local populations with the message of the mission of the force. Today, not only traditional media, including television, radio and newspapers, play a vital role in disseminating a message, but also real time applications such as Twitter, Facebook, Skype, and Facetime form a substantial part of information access. Understanding these communications systems puts military forces in positions to achieve the end state.

Today's infrastructure also influences the operational environment. Facilities enable a society to accomplish certain requirements, like energy provision, sewer system, water purification, road networks for economy, school and governmental buildings, hospitals, etc. According to the UN Department of Economic and Social Affairs, more than 50 percent of the world population lives in urban areas.¹³ Therefore, soldiers deploy mainly in areas with significant infrastructure. The physical environment variable determines the way soldiers physically operate. The terrain affects people, equipment, traffic ability and employment of weapons. Today's soldier will operate in multiple environments, from the mountains of Afghanistan to the dessert of Iraq to the jungle of Indonesia.

All these elements influence the deployment and use of military formations and the decision making process to conduct missions. Thus military leaders must possess the capability to comprehend the situation and the ability to transmit clear orders to their subordinates.

Requirements to lead troop in combat

Military commanders must operate within this complex environment and assure compliance to orders. The ability to respond and act within this environment requires commanders who understand the environment, show flexibility to changing circumstances, demonstrate adaptability in variable conditions, move with agility across the battle space, and provide innovative solutions in the changing circumstances. Yet, above all a commander must seize the initiative in order to retain a maximum control over the situation and pursue mission success. Though commanders do not control the

operational parameters and there exists a continuous gap in information, three major factors contribute to commanders seizing the initiative.

First, commanders must receive sufficient trust to conduct the mission according to their analysis. This means that a commander allows his subordinate to execute a mission according to that subordinate's comprehension of the situation. An example from General Grant's orders to General Sherman during the American Civil War in 1864, illustrate the basic principles for practising mission command.

It is my design, if the enemy keeps quiet and allow me to take the initiative in the Spring Campaign to work all parts of the Army together, and, somewhat, toward a common center. . . . You I propose to move against Johnston's Army, to break it up and to get into the interior of the enemy's country as far as you can, inflicting all the damage you can against their War resources. I do not propose to lay down for you a plan of Campaign, but simply to lay down the work it is desirable to have done and leave you free to execute in your own way. Submit to me however as early as you can your plan of operation.¹⁴

Sherman's response to Grant's demonstrates how well he understood his commanders' intent.

That few are now all to act in a Common plan, Converging on a Common Center, looks like Enlightened War . . . I will not let side issues draw me off from your main plan in which I am to Knock Joe [Confederate General Joseph E.] Johnston, and do as much damage to the resources of the Enemy as possible . . . I would ever bear in mind that Johnston is at all times to be kept so busy that he cannot in any event send any part of his command against you or [Union Major General Nathaniel P.] Banks.¹⁵

A second substantial element for seizing initiative resides in providing guidance that directs a subordinate towards the objective. This guidance should contain the purpose of the overall mission as determined by the higher echelon. Commanders who are well informed about the higher intent possess better knowledge and understanding to guide their subordinates. For example, the catastrophic losses in the 28th Infantry Division were the direct result of Major General Norman Cota's ignorance with regard to the

overall objective to be reached during the December 1944 attack in Huertgen Forest. Lieutenant General Courtney Hodges did not provide sufficient guidance, which was actually an objective more in depth, the Rhein dam.¹⁶ Finally, commanders must have a certain freedom of action that allows initiative.

Assumptions and limitations

This study will not evaluate command systems, nor the ability to command troops. This study investigates the original circumstances and compares the application of mission command in today's doctrine and environment. Due to time limitations, it is not possible to examine all social factors and dynamics that influence armed forces as an organization and the individuals. Furthermore, this study is conducted without a survey among military leaders and subordinates. Such an investigation requires a detailed study of a specific audience, and is not the aim of this document.

Though some people will tie mission command philosophy to leadership, this study will only describe the relationship between the principles of mission command and a commander gives orders to his subordinates. Yet, during the course of this study, it will become clear that certain leadership aspects affect mission command and vice versa.

¹Belgium Defense Forces, ACOT-TAM-MINFCIE-LSC-001, *Het tactisch gebruik van de Medium Infanterie Compagnie* and ACOT-TAM-TABECIE-LSC-001, *Gids voor de tactische beoordeling op het niveau compagnie* (Brussels: ACOS Operations and Training, Doctrine and Requirements, 2011).

²Chairman, Joint Chiefs of Staff, JP 3-0, *Joint Operations* (Washington, DC: Government Printing Office, August 2011), xii.

³Department of the Army, ADP 3-0, *Unified Land Operations* (Washington, DC: Government Printing Office, October 2011), 6.

⁴Sun Tsu, *The Art of War*, trans. Samuel B. Griffith (New York, NY: Oxford University Press, 1963), 39.

⁵Carl von Clausewitz, *On War*, ed. and trans. by Michael Howard and Peter Paret (Princeton, NJ: Princeton University Press, 1976), 89.

⁶*Ibid.*

⁷Gunter Rosseels, “Which of the theorists or practitioners studied in H100 offer the most useful insights for twenty-first-century warfare?” Unpublished argumentative essay on H100–Rise of the Western Way of War (Fort Leavenworth, KS: US Army Command and General Staff College, 2011).

⁸Department of the Army, ADRP 3-0, *The Army in Unified Land Operations* (Washington, DC: Government Printing Office, September 2011), 1-3.

⁹Patricia L. Sullivan and Michael T. Koch, “Military Intervention by Powerful States, 1945–2003,” *Journal of Peace Research* (September 2009), <http://jpr.sagepub.com/content/46/5/707> (accessed May 7, 2012).

¹⁰Hybrid threat: “Any adversary that simultaneously and adaptively employs a fused mix of conventional weapons, irregular tactics, terrorism and criminal behavior in the battle space to obtain their political objectives.” Hoffman G. Frank, “Hybrid vs. compound war,” *Armed Forces Journal*, www.armedforcesjournal.com/2009/10/4198658 (accessed April 27, 2012).

¹¹Belgian Intelligence and Security School, “Intelligence Preparation of the Battlefield in Crisis Response Operations,” in *education textbook for the intelligence officers course* (Heverlee, Belgium: Belgian Intelligence and Security School, 2009), 16.

¹²*Ibid.*, 17.

¹³United Nations, Department of Economic and Social Affairs-Population Division, “World Urbanization Prospects, the 2009 Revision,” March 25, 2010, http://www.un.org/News/briefings/docs/2010/100325_DESA.doc.htm (accessed May 7, 2012).

¹⁴Jeremy M. Holmes, “Defining Adaptive Leadership in the Context of Mission Command” (Master’s Thesis, US Army Command and General Staff College, Fort Leavenworth, KS, 2011), 34.

¹⁵*Ibid.*, 35.

¹⁶Thomas G. Bradbeer, “Major General Cota and the Battle of the Hurtgen Forest: A Failure of Battle Command?” in *Book of Readings L200–Leadership Applied* (US Army Command and General Staff College, Fort Leavenworth, KS, 2011), 31-37.

CHAPTER 2

PRUSSIAN ARMY IN THE NINETEENTH CENTURY

Military science . . . consists in calculating all the chances accurately in the first place and then giving accident exactly, almost mathematically, its place in one's calculations. It is upon this point that one must not deceive oneself, and yet a decimal point more or less may change all. Now this apportioning of accident and science cannot get into any head except that of a genius. . . . Accident, hazard, chance, call it what you may—a mystery to ordinary minds—becomes a reality to superior men.

—Claire de Rémusat

Introduction

The French Revolution at the end of the eighteenth century shaped the prelude for significant changes in Europe. In the aftermath of the Revolution, Napoleon conducted wars that would change the face of Europe and alter Western society significantly. Moreover, the revolutionary ideas of the French Revolution forced other monarchies to adopt more democratic policies like the introduction of suffrage, and to review their strategic military position. Indeed, to counter Napoleonic warfare, major European powers had to enlarge their armies significantly through the introduction of conscription, which in turn impacted society and civil-military relations meaningfully. Additionally, warfare had become unlimited in nature instead of limited. It required a whole nation to defeat an opponent's forces or protect own resources and interests.

These changes led to several theories on operational art and warfare, of which Jomini and Clausewitz remain the most famous of that period. Above that, technological progression impacted warfare and introduced a revolution in military affairs. The number of casualties on the battlefield increased considerably and the type of injuries changed as

new weapon systems such as breech loaders emerged. Military organizations struggled with such innovations. However, those countries that showed adaptability to use those advances would become more powerful, and would shift the balance of power during the nineteenth century. New countries such as the Germany and the Japanese Empire would emerge as new major powers besides the British Imperium.

The Prussian army officer education model contributed significantly to the rise of the German Empire. The Prussian Army required from its officers independent, critical thinking to seize the initiative and demonstrate adaptability to changing circumstances with the aim of accomplishing the mission. Later this model became known as mission command or *Auftragstaktik*. This chapter studies the conditions in which such command philosophy could emerge.

Rebuilding the Prussian Army

Modern mission command philosophy finds its origins in Moltke's concept for organizing tactical formations on the battle field in the nineteenth century. Field Marshal Helmuth Karl Bernhard Graf von Moltke, often referred to as Moltke the Elder, Chief of Staff of the Prussian Army from 1857 to 1888, redefined the way commanders should lead and command their formations. His perception and experience on command and control resulted from the Prussian army education system and the social structure created at the beginning of the nineteenth century. In 1806, the Prussian army was defeated so badly at Jena that it led to profound changes within the military and society.

The technological and social dynamic after the French Revolution created foundations for military innovations in doctrine and commanding troops. Indeed, Napoleon not only conquered his enemy by an outstanding demonstration of tactical and

operational skill, he completely annihilated the Prussian military in October 1806. The French *levée en masse* provided a new dynamic in warfare at the end of the eighteenth and continued in the nineteenth century. From that moment on, military formations no longer consisted of a mix of mercenaries and conscripts, but rather of homogenous troops based on mobilization of the state. People wanted to protect the interests of the state at all cost, and their relationship with the state differed thoroughly then the type of armies organized during the Frederick the Great era. State leaders could now mass the population to create large formations, which needed less time to train. The Prussian army, on the other hand, differentiated quite significantly from the new military organizational model, or as a British general observed in 1781 after the Seven Years campaign:

The Prussian army, being composed chiefly of strangers or different countries, manners, and religion, are united only by the strong chain of military discipline; this and a most rigid attention to keep up all the forms and discipline established, constitutes a vast and regular machine, which being animated by the vigorous and powerful genius of their leader, may be justly accounted on the most respectable armies in Europe; but should this spring, however, languish but for an instant only, the machine itself, would probably fall to pieces, and leave nothing but traces of its ancient glory behind.¹

The adherence to this Frederick the Great model proved ineffective in combat. Napoleon's attack on Jena resulted in chaos and the inability of Prussian generals to take the necessary initiative based on analysis of the environment. Moreover, due to a lack of training, Prussian commanders retained their troops in too tight columns, which resulted in 20,000 Prussian soldiers being exposed to French fire.² At the end of the battle, the French army captured 4,000 cannons, seven fortresses and 80,000 prisoners.³

Such dramatic events induce innovation to organizations. The events at Jena exposed the deficiencies in the Prussian government and necessitated reform. Not only did Prussia had to discard the type of army formed by Frederick the Great, they also had

to adapt and implement new and other training methods. Moreover, forming a new type of military units became indispensable for Prussia. The four major contributors to change of the Prussian system were Scharnhorst, Bülow, Gneisenau and Clausewitz. First of all, Gerhard Scharnhorst established the Prussian “Academy for Young Infantry and Cavalry Officers” to reeducate and train army officers. The battle at Jena proved that modern armies needed educated officers who can take certain initiative within larger formations. Secondly, Scharnhorst opined to redefine the relationship between citizen and state in order to enable mass mobilization. Fortunately, the circumstances made such change possible. The occupation by Napoleon’s forces laid the foundation for nationalism in Prussian and later German history. This rise of patriotism that would defy the French set the conditions to introduce a new, though limited standing army combined with a the possibility to mobilize a *Landwehr*, a militia type unit in Prussian society whose initial mission existed in protecting the cities. Applying a conscription concept as means to defend the state implemented a change in leading troops. The violently-inculcated “corpse-obedience” or *Kadavergehorsam* would no longer be tolerated by civilians. Thirdly, Scharnhorst concluded that skirmishing required a specific kind of unit with independent fighting capabilities and empowered leadership.⁴

Besides those strategic changes, the army reorganized. Indeed, mixed brigades consisting of different capabilities became the base formation for the Prussian army and the division and corps staffs got upgraded with more officers and capabilities. Conversely, the emergence of those staffs, the corps of engineers, medical services, military police, and supply units had social implications. From that point onward, aristocratic families no longer possessed a certain monopoly for occupying leadership

positions or staff functions, people from all social classes were eligible for command or influential staff duties, which they now specifically requested. This reinforced Scharnhorst's guidance for better, more disciplined training and education of officers. That education system would focus on generating a broad base of erudite officers.⁵ He assumed that the Prussian education model should focus on education of a quantitative number of officers instead of merely relying on the rise of military genius, like Napoleon or Frederick the Great.

The successful transformation of the Prussian Army occurred in two significant components: implementation method and political environment. First of all, Scharnhorst and Gneisenau did not simply copy the French system, but tailored the reform to the specific circumstances of Prussia. The revolution in Prussian military affairs did not result from society itself, like it did with the French Revolution France. Instead, external circumstances shaped the changes in Prussian military, namely the occupation by France and the limitations imposed by the Treaty of Tilsit between the Prussian King, Friedrich Wilhelm III, and Napoleon in 1807. According to the treaty, Prussia was only allowed to form a standing army of 40,000 men, and a certain number of Prussia's territories were taken over by France. Consequently, to remain within the numbers, the Prussian Army retained the more brighter officers within their ranks.

Secondly, the political spectrum of Prussia differed considerably from France. Aristocracy and antagonists to change remained very influential in Prussia. Though Frederick William promised modification, after Scharnhorst died, many of his followers were neutralized. Military conformists preferred teaching the Jomini inspired *Theorie des grossen Kriegen* written by General von Willisen, as this provided very clear rules and

principles.⁶ From a certain perspective this appears logical, as France possessed the paradigm army after a series of successful campaigns. Yet, Jomini did not describe a comprehensive approach on war itself, he merely sets out a system and rules useful on operational level. The catalyst to change came from a careful study and analysis of events during the Battle of Jena, much later in time. Under the impulse of officers who studied the Battle of Jena and of Clausewitz' writings as a junior officer, the change could really take happen. It would take until Moltke became Chief of Staff in 1857 and the Prussian campaigns at Königgratz and Sedan to see the effects of the innovation and to change military doctrine definitely. Indeed, between 1815 and 1860, the Prussian army mainly focused on organization, peacetime training, theoretical study of war, and introducing new technological advancements, such as the needle-gun and railway systems.⁷

To sum up, the Battle of Jena remains the tipping point of change for the Prussian society and its army at the beginning of the nineteenth century. The Prussian military went through changes on an organizational level and on individual level. Scharnhorst and Gneisenau understood that, in order to recreate a successful military, they had to reform the Prussian army, integrate the citizens of the state into the armed forces, and above all, educate and train their officers in taking initiative.

Today, the Prussian Army school model remains a paradigm for modern forces, even considering the changes society went through and the creation of modern Western armies based on an all-volunteer force. More importantly, Scharnhorst provided the opportunity for thinkers such as Clausewitz to emerge.

Roots for mission command: The Military Genius

In 1823, Helmuth von Moltke studied at the Prussian Military Academy, where Clausewitz acted as director. The question whether Clausewitz directly influenced the thinking of von Moltke remains a hypothetical one, yet one can assume they at least shared a common understanding of the environment in which they lived and worked. Clausewitz based his view on his personal experiences of participating in war, while Moltke's came from studying Prussian wars and Napoleon's legacy in the *Kriegsakademie*.

Marie von Clausewitz published *On War* in 1832, one year after Clausewitz' death. Probably a significant number of European military and political leaders, and academics read his work. In all probability, Moltke's ideas find their origin in Clausewitz' philosophy. Moreover, this book would lay the foundations for modern military strategic and operational thinking in many Western armies. Clausewitz described the true nature of war and the conduct of warfare. In his description of war, he recognized the inevitable uncertainty and chaos to which soldiers are subject in conflict, and called it "Friction in War."⁸ Operating in such an environment requires highly educated and flexible leaders who clearly understand the higher commander's expectations, ergo introducing implicitly *Auftragstaktik*.

Although Clausewitz does not literally use words such as leadership, command and education, he refers to them collectively as "Military Genius."⁹ According to Clausewitz, genius means "a very highly developed mental aptitude for a particular occupation."¹⁰ During combat, soldiers will face danger, uncertainty, coincidence and physical endurance, and those factors will affect a soldier condition. To counter those

effects, Clausewitz determines two human areas in which a genius can distinguish himself by training and education: personal qualities and the ability to assume responsibility in combat.¹¹

The personal qualities refer to a person's ambition, patriotism, determination and enthusiasm combined with physical appearance and the combat techniques to stay alive. The first of those abilities are inherent to a person, and are the result of education combined with character. Physical appearance and combat skills can improve by means of training and, more importantly, by education. All these elements frame the warrior part of the leader and enable an individual to destroy or annihilate an enemy physically. Those skills will keep the soldier alive in the difficult circumstances of war, yet this does not assure complete success.

The second area requires more intellectual abilities. Someone who accepts responsibility must also possess the competences to provide guidance and determination to take a decision after judging circumstances. Within an uncertain environment like war, plans are based upon assumptions. Those assumptions need validation before or during combat. Consequently, a commander accepts that his subordinate executes the mission in another way than anticipated by the commander, based on circumstances and information only visible or known to that subordinate.

This more comprehensive approach to guide and direct actions enables us to relate the elements of warfare and the terrain to decision making. Clausewitz actually defines what today is called situational awareness and understanding in order to make decisions based on what actually happens.¹² He refers to it as the *sense of locality*, "the faculty of

quickly and accurately grasping the topography of any area which enables a man to find his way about at any time.”¹³

Such a cognitive process reduces theory to general guidelines and not to dogmatic laws. Commanders accept that subordinates view rules as principles to follow in order to reach the common objectives. Clausewitz wanted to drive out formalism from military education.¹⁴ According to him, this would achieve the flexibility necessary to defy the challenges of warfare, and create the space that young officers need to take initiative and explore beyond the theory.

Although this theory remains relevant, Clausewitz does not provide sufficient tools to create such officers. He only described the necessary requirements for officers and military leaders in wartime.

Nevertheless, this philosophy impacted the Prussian education and training system considerably. Leaders were now required to think about the mission, the variables they might encounter during execution and the overall objective or purpose. It forced them to think critically with improvisation and creativity. However, the organizational change in the Prussian Army did not result solely from this mental point of view. The introduction of needle-guns, the modernization of transport, and the invention of the telegraph were other major contributors to the success of the Prussian Army in 1866.

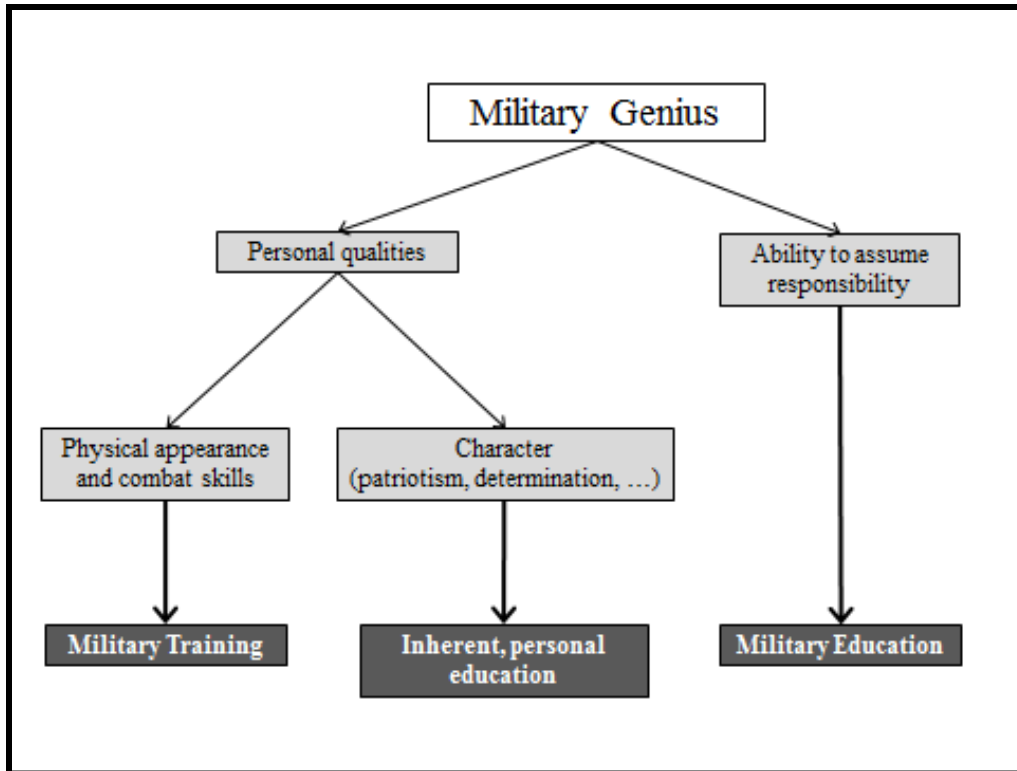


Figure 2. The Military Genius Model

Source: Drawing by author of this thesis based on readings in Carl von Clausewitz, *On War*, ed. and trans. by Michael Howard and Peter Paret (Princeton, NJ: Princeton University Press, 1976), 100-103.

Transforming the Prussian Army

At the end of the eighteenth century, Napoleon also integrated successfully the new social circumstances and technological innovations to improve the French Army. Indeed, based on the pre-revolutionary invention of lightweight, eight- and twelve-pound cannons, he introduced the battery system that enabled French units to deploy faster on the battlefield and mass firepower in support of the infantry. Furthermore, universal conscription provided him the forces to create his *Grand Armée* and absorb the casualties of offensive battle. Napoleon's army consisted of large corps and division level

formations that needed new columnar tactics. Skirmishing combined with shock columns broke the opponent's musket armed line infantry. The French emperor emphasized mass, speed and mobility. Austria, Russia, and to a certain extent Great-Britain would take over this doctrine of mobilization and shock tactics, where troops were led by a single, leadership or from a centralised headquarters. Prussia followed this doctrine until Moltke became Chief of Staff of the Prussian Army.¹⁵

Moltke's changes on the organizational and tactical levels of the army reflected the political and strategic situation of Prussia. The uprising in 1848 by the liberal movement failed to reduce fundamentally the power and influence of the king and nobility on politics and government. One of the reasons for this futile revolt consisted of the Army's loyalty to the king. The Prussian Army alliance with the king provided them the incentives to gain certain independency to create an organization that could change without significant exterior interference. Moreover, many of the senior military leaders questioned the effectiveness and efficiency of the *Landwehr*, and in 1859, Wilhelm I decided to relieve the *Landwehr* from first line operational missions. In fact, these militiamen were poorly trained soldiers who could merely perform drill, and who were difficult to mobilize quickly. Above that, there existed much discontent within society, because most of the time, the older men got recalled for duty.¹⁶ So, the army could now start its transformation.

On the other hand, France, Austria and Russia continued to threaten Prussia's existence. Moltke, Roon and Bismarck concluded two things. First, the Prussian army needed a system for quick mobilization of units to mitigate the threat, and secondly, it had to create an army that could launch attacks in enemy territory in a first strike, on the

place of their choice. This would make “Germany the premier military state of Europe.”¹⁷

The technological innovations in weapons and subsequently tactical improvements helped the Prussian Army to face this challenge, and reinforced mission command as doctrinal approach.

Between 1840 and 1860, the range of weapons extended drastically. The infantryman received a weapon that enabled him to shoot up to 1,200 meters, and the average cannon range reached 7,000 meters. The introduction of the breach loading rifle from Dreyse made it possible to load in any posture – standing, kneeling, or lying down – and the weapon had a higher rate of fire than muzzle-loaders. On the other hand, a higher fire frequency meant more logistic support, which was not feasible at the beginning of 1840. Thus, employing needle-rifles required better trained leadership who controlled the rate of fire better in order to possess sufficient munitions for the final assault or defensive line. Platoon and company leadership now had to think about mission accomplishment instead of assuring inaccurate volley fire. The artillery, still in centralized support of the infantry, was now placed at a larger distance, making it difficult for attacking infantry units to cross open terrain in a single line formation without being hit. In that period, commanders commanded their troops with verbal orders and motivated their soldiers from the back of the formation pushing their men forward. The position of the officers and non-commissioned officers within the formation had to change: they now had to lead from the front, and could no longer command from the rear of the formation. Now that commanders led in front across the field, once the fight started, commanders could no longer change direction. Crossing the gap meant that officers were forced to think more independently. So, Moltke concluded that it had become more difficult to maneuver a

unit once in battle if units applied Napoleonic tactics. Besides this tactical improvement, he needed to command and control large formations across the country. He succeeded in increasing the size of the army to 300,000 men by 1860, three times larger than in 1850, and according to the new doctrinal approach those large formations needed rapid operational deployment over larger distances using the railroad system. Moreover, the telegraph made it possible to transmit orders on a longer distance and direct a campaign from a central position further away from the actual battle.¹⁸

Ordering the independent movement and deployment of larger formations became possible in the nineteenth century due to railroads and the telegraph. The question arose, how does a theatre or army commander maintain command and control of such units and direct them in a unified way? Actually, the answer seems nowadays quite simple: you provide general directives to the division and brigade commanders in which a commander states what the task is, where to perform it and at what time. This became possible as corps, divisions and brigades had acquired a certain self-sustainment as a result of lessons learned during mobilization exercises. Perhaps more important was the expanding distances between brigades that increased from two to five km.¹⁹ Prussian units became skilled at marching separately and fighting together, and they aimed to arrive on time at the place needed. Yet, providing orders that were understood by all commanders in the same way depended on two elements: uniformly training and education. Written orders had to be clear, concise and short, leaving the execution details to the subordinates. This method was taught at the Kriegsschule and during exercises and maneuvers.²⁰

Moltke's operational and tactical thinking mirrored this strategic and conceptual vision of war, thus he modified tactics fundamentally in view of those factors. First of all, he pushed the concept of "fire-tactics." The needle gun made it possible to develop a high fire rate that counterbalanced the mass effect of the "volley-fire concept." This firing method increased the need for control by lower level leadership. As previously mentioned, the Prussian army was initially limited, hence creating units with a higher fire ratio could compensate for the shortfall in men. Secondly, he advocated splitting his units into rifle companies and even platoons that could deploy rapidly in order to deliver overwhelming fire to the enemy. This focus on small unit tactics imposed a decentralization of command and control, a doctrine which some commanders opposed. Field Marshal Friedrich von Wrangel considered Moltke's fire-tactics "uncontrollable and dishonorable, for they dispersed troops in ragged lines and dealt deadly blows not face-to-face but from concealment and at a distance."²¹

In summary of this paragraph, Prussian tactics changed fundamentally. The other European armies remained conservative in their doctrinal approach without studying the possibilities that new technology provided. All these factors presented opportunities that would eventually change the battle field and the way to command units. On the other hand, Moltke's focus on small unit tactics required junior leaders to take initiative and to demonstrate independent thinking within the framework of their mission objective. Thirdly, this expansion of formations dictated the transfer of command from headquarters to officers at the front, and would prove to be very effective in 1866, during the Prussian-Austrian war.

Conclusion

Without studying the impact of the industrial revolution or the influence of philosophical streaming such as Kantianism or romanticism on society in the nineteenth century, this chapter concludes that command authority transferred from the highest level towards small units in the Prussian army between 1848 and 1871.

The Prussian army was a learning organization that was willing to adapt its doctrine. First, it had a clear understanding of the environment. Technological innovation of the needle-gun and new artillery created the ability to change formations and the way they operated. The expansion of railroads and the telegraph enlarged the operational battle space significantly, in which commanders had to operate independently. The strategic situation of Prussia demanded an offensive, Clausewitzian approach with centralized planning and decentralized executed mobilization. Secondly, Prussian army and political leadership established a learning culture where officers were encouraged to think critically in order to improve the organization and their command skills. For them, theory became a general directive, not a dogma in order to create adaptive, flexible thinking. Thirdly, innovators like Scharnhorst and Moltke provided a clear vision for the organization supported by their commanders and society.

Though some critics will argue that it took more than forty years to realize the innovations Prussian military leadership initially envisioned, one cannot omit that those circumstances resided outside the organization. Those circumstances came from social and political nature, and merely slowed down the change set in motion after the Battle of Jena in 1806.

¹Henry Loyd, “History of Late War in Germany,” in *The Wars of Napoleon* by Albert Sidney Britt III, ed. by Thomas E. Griess (Wayne, NJ: Avery Publishing Group, Inc., 1972), 59.

²*Ibid.*, 70.

³Geoffrey Wawro, *The Austro-Prussian war: Austria's War with Prussia an Italy in 1866* (New York, NY: Cambridge University Press, 1996), 9.

⁴Peter Paret, *The Cognitive Challenge of War* (Princeton, NJ: Princeton University Press, 2009), 82.

⁵*Ibid.*, 92.

⁶Carl von Clausewitz, *On War*, ed. by: Michael Howard and Peter Paret (Princeton, NJ: Princeton University Press, 1976), 27.

⁷Hajo Holborn, “The Prusso-German School: Moltke and the Rise of the General Staff,” in *Makers of Modern Strategy, from Machiavelli to the Nuclear Age*, ed. by Peter Paret (Princeton, NJ: Princeton University Press, 1986), 281.

⁸Clausewitz, *On War*, 119-121.

⁹*Ibid.*, 100.

¹⁰*Ibid.*

¹¹*Ibid.*, 101.

¹²Department of the Army, FM 3-0, *Operations* (Washington, DC: Government Printing Office, February 27, 2008), Glossary-13.

¹³Clausewitz, *On War*, 109.

¹⁴Jean Collin, “The Transformation of War,” in *Makers of Modern Strategy, from Machiavelli to the Nuclear Age*, ed. by Peter Paret (Princeton, NJ: Princeton University Press, 1986), 212.

¹⁵Wawro, *The Austro-Prussian war*, 6-8.

¹⁶Dennis E. Showalter, “The Prusso-German RMA, 1840-1871,” in *The Dynamics of Military Revolution*, ed. by MacGregor Knox and Murray Williamson (New York, NY: Cambridge University Press, 2009), 95-96.

¹⁷Wawro, *The Austro-Prussian War*, 13-16.

¹⁸*Ibid.*, 18 and 21.

¹⁹Ibid., 9.

²⁰Arden Bucholz, *Moltke and the German Wars, 1864-1871* (New York, NY: Palgrave, 2001), 57-58.

²¹Ibid., 23.

CHAPTER 3

HELMUTH VON MOLTKE'S MISSION COMMAND

Make no little plans. They have no magic to stir men's blood and probably themselves will not be realized. Make big plans. Aim high in hope and work. Remembering that a noble, logical diagram once recorded will not die.

— Daniel H. Burnham

Introduction

Between 1857 and 1862, Moltke continued to change the Prussian army without substantial external interference besides the discussions about prolonging conscription and raising the number of soldiers. Hitherto, the military force had not experienced significant battle since Waterloo in 1815, except for the mobilization of 1840 and the uprisings in 1848. As of September 1862, this shortage in practice would change when Otto von Bismarck became Minister-President of the kingdom of Prussia. Bismarck requested Minister of War Albrecht von Roon to develop a plan for war against Denmark. This ultimately provided the opportunity for Moltke to assess the transformation of the Prussian army.¹ The newly reformed Prussian army would face the test of battle in wars against Denmark in 1864, Austria in 1866 and France in 1870-71. The German unification process, orchestrated politically by Bismarck and militarily executed by Moltke, would not only change the power balance within Europe, it would also make the Prusso-German Army one of the most efficient and effective military organizations from the late nineteenth century until its defeat in World War II. Their officer education model grew into the paradigm edification of military leaders for continental Europe armies.

Learning lessons in Denmark

In 1862, Moltke sent Justus Scheibert to the US to observe the American Civil War with the aim to collect data on the effects of artillery on earth, masonry and iron. The engineer officer witnessed several battles and talked with prominent military leaders such as General Robert Lee and General Stonewall Jackson. His conclusions confirmed the initial Moltke analysis on the impact of technology on tactical and strategic level. First of all, artillery had a significant impact on the battlefield and infantry had difficulties in storming a defended position.²

Secondly, Scheibert confirmed the decentralization of the battlefield.

Bull Run taught at least one lesson. Even the most spirited mobs cannot fight a war. The lack of intermediate levels of command had made itself felt, too, drive itself home. The general found it next to impossible to direct nine brigades himself. Southern commanders did not pursue the enemy, they set to the task, the problem: organization.³

This point of view is confirmed by Lee when Scheibert interviewed him on the eve of the battle of Gettysburg.

You have to realize how things stand with us. Recognize that my order then would do more harm than good. I rely on my division and brigade commanders. How terrible if I could not. I plan and work as hard as I can to bring the troops to the right place at the right time. I have done my duty with then. The moment I order them forward, I put the battle and the fate of the army in the hands of God.⁴

Finally, Scheibert concluded that an efficient railroad system had become indispensable to move and sustain troops across the battlefield. Indeed the Confederate Army had enormous difficulties to maintain its railway system, resulting in significant delay in bringing troops to the battlefield, while the Union preserved more capabilities to deploy its troops around the theatre of war with its train capabilities.⁵

Justus Scheibert's expertise became invaluable in advising Bismarck and Moltke on the upcoming war with Denmark. The Duchies of Schleswig-Holstein constituted an ethnic German fief assigned to the King of Denmark as a result of the London Protocol of 1852. The moment the Danish King Frederick VII died heirless in March 1863, the succession to control the duchies became a catalyst to reunite the territory in the German Confederation.⁶ Minister-President Bismarck molded a Prussian-Austrian alliance to achieve Prussia's end state: annexation of the duchies without interference from the European great powers. However, the Austrians requested that this military force be led by an experienced commander. The Prussian Field Marshal von Wrangel, an old Napoleonic veteran, became commander in chief and Moltke personally briefed the old Field Marshal on Prussia's initial plan that Moltke himself had designed. Moltke advised Wrangel not to conduct frontal attacks and to send forces around the Danish flanks and fortresses. Notwithstanding this advice, Wrangel did not follow the new tactical approach. The results were disastrous and the fighting resulted in numerous casualties and ultimately the relief of Wrangel and the rise of Moltke.

Thus, the Danish War became a confrontation between old and new styles of warfare on continental Europe in which the Prussian army initially struggled with its transformation. First of all, the commander in chief, Wrangel, ordered his troops verbally and rejected the use of documents, which Moltke had introduced. The communications between his commanders and him stayed very limited.⁷ Secondly, during training in 1861, officers still used frontal attacks while ignoring terrain and maneuver, despite remarks made by the Crown Prince.⁸ Those attack tactics reflected themselves on the battlefield during the Battle of Missunde. Throughout the initial five hour attack on

Missunde on February 1, 1864, the Danes and the Prussians shared nearly 500 casualties without significant change in the tactical situation.⁹ Three days later, the Austrians experienced a similar battle at Sankelmarkt. Danish riflemen, in defensive positions, inflicted heavy casualties to the frontal attacking companies. The battle resulted in 400 Austrian and 1000 Danish victims, without substantial military result.¹⁰ Wrangel continued with this siege of fortresses, in contradiction to Moltke's advice.

Moltke wanted to annihilate the Danish Army by envelopment, bypassing fortresses and using combined tactics whereby artillery fired upon the heavily defended points to force the enemy to withdraw. For example, Wrangel lost two complete regiments during the first attack on Dybbol, and the assaults broke on the prepared Danish defensive positions. While the battle stalemated and heavy artillery bombardments started, Moltke prepared an envelopment by the sea. The fight after this envelopment took merely 20 minutes. Between February 11 and April 18, 1864, the battle of Dybbol resulted in 1000 Prussian casualties. Despite those losses, the Prussians celebrated this tactical victory as this was the first Prussian military triumph in 50 years.¹¹ However, Prince Friedrich Charles relieved Wrangler, and Moltke received the appointment as Chief of Staff of the Prussian Army, becoming the actual commander of the Prusso-Austrian alliance.

To sum up, although the Prussian officers had learned fire-tactics and how to make use of terrain features, at the start of the campaign their commanders ordered them to use shock tactics and frontal attacks. Moltke changed this approach, and within four weeks after resuming combat, the Prussian Army occupied the Danish peninsula and forced an armistice without any concessions to the Danish and the handover of

Schleswig-Holstein to Prussia. During combat the officers learned valuable tactical lessons. Indeed, the combination of decentralized company columns with skirmish lines became difficult to control in the attack. This could only be resolved by discipline and training.¹² Secondly, the Dreyse gun proved its utility and supremacy compared to the Danish muskets. Thirdly, the artillery barrages prior to infantry assaults had become effective and indispensable. More importantly, Moltke retained his position as Chief of Staff and obtained recognition amongst his peers, subordinates, and politicians.

Confirmation at *Königgrätz*

The annexation of Schleswig-Holstein by Prussia induced a chain of events that inevitably led towards war with Austria and the sovereign duchies of Bavaria, Hanover, Saxony, Hesse-Cassel, Württemberg, Baden, Hesse-Darmstadt and Nassau. Prussia continued to improve and to build up its army, and by 1866 its armed forces comprised of nine army corps or 335,000 men under arms and an additional 265,000 men in the *Landwehr*. All soldiers were equipped with the needle-gun breech loader rifle and the artillery had received 6-pounder and 4-pounder steel breech loading guns.¹³ A quarter of a million men would deploy during the fight at *Königgrätz* in June-July 1866. This battle, otherwise known as Sadowa, showed Europe that Prussia possessed a modern army, capable of destroying its adversaries by using envelopment tactics, decentralized battles and a centralized operational planning, combined with effective use of the breach load weapon and artillery.

Preparation

Larger armies and new operational thinking made centralized operational and strategic planning necessary. First of all, the Prussian Army had to mobilize more than 250,000 soldiers from the *Landwehr*. Those soldiers defended the Prussian fortresses and constituted the reserve forces, while the active component of the army conducted the campaign.¹⁴ Secondly, if Moltke wanted to destroy the enemy's center of gravity in accordance with Clausewitz' thinking, he had to bring his force into contact with the Austrians. Moltke argued that Prussia could only achieve a decisive victory if it destroyed Austria's center of gravity, to be precise the Northern Army.

His plan involved the formation of three mobile columns who had to overrun Saxony and the other Germanic states, penetrate Bohemia, and there envelop the Austrian force.¹⁵ Therefore he created four armies. The Western Army, led by General Eduard Vogel von Falckenstein, would overrun Hannover and Hesse-Kassel in order to secure the lines of supply and retreat. The Elbe Army, led by General Karl Herwarth von Bittenfeld, would have to defeat the Saxon army and then join Prussia's First Army, commanded by the nephew of King William I, Prince Friedrich Karl. First Army had to push into Bohemia, force a crossing over the Iser River, and fix the Austrian Northern Army. Crown Prince Friedrich Wilhelm, commanding the Second Army, had to prevent any Austrian attempt to move to the north and his Army would conduct the final assault on the Austrian Northern Army with a sickle movement in order to annihilate them.¹⁶

However, Moltke's forces were spread over a distance of more than 500 km and had to come together at the right place and the right time. This plan deviated completely from known Jominian doctrine and actually put the Austrians in a more advantageous

position. Jomini described this as fighting from interior lines. A reasonable assumption remains if the Austrian leadership had had better situational understanding and a trained officer corps similar to the Prussians, they could have attacked the Prussian Army by fighting from interior lines or exploiting the gaps that existed between the Prussian armies. Moltke summarized this daring plan as follow: “Prussia’s advantage lies in the initiative. We can mobilize our forces more swiftly than any of our Germanic opponents. Success depends entirely upon their [Prussian forces] immediate and unconditional employment.”¹⁷

Thirdly, Moltke had to ensure everyone understood the new war-planning and tactics. Indeed, within the officer corps and the King’s entourage there still existed a certain number of traditionalists, adepts of the Jominian approach and an agricultural elite who believed in the warrior leader without proper education. The following two examples demonstrate this. Close advisors to the king warned Moltke that this plan was too much of a gamble as the troops were too dispersed and could not support one another.¹⁸ Though he could not refute such logical reasoning, this demonstrate the fundamental difference in approach to the art of war that distinguished Moltke from his peers in that time period. Moltke advocated risk acceptance and incorporation of risk based upon scientific elements as time and space. Furthermore, on several occasions, Moltke had to intervene in the plans of his subordinates, such as Prince Friedrich Charles. The prince often pursued other goals than the ones set by the Chief of Staff. As commander of the First Army, he believed that massing the Prussian force would provide decisive victory, yet he did not know the precise location of the Austrian force. By keeping a decentralized force, Moltke wanted to maintain the flexibility enabling him to

mass or encircle his adversary on the moment of his choice instead of moving his 250,000 men army around the battlefield without proper direction. Moreover, decentralized armies had the ability to pursue and maintain pressure on the Austrian formations.¹⁹

Moltke also faced another problem. From the moment the operations started in Bohemia on June 26, he could only reach his army commanders by messenger delivery. On June 30, 1866, the army headquarters moved from Berlin to Bohemia and only on July 2, at the eve of the battle of Königgrätz, the telegraph connection between him and his armies became operational. In practice, the Prussian armies fought their battles independently within a centralized plan and showed sufficient initiative and audacity to achieve their objectives.²⁰ Given the communication technology available in the nineteenth century, Moltke could never have had an up to date understanding of events on the battlefield. As such, this limited his ability to command and control his units. Thus, he was forced to rely on his army commanders. On the other hand, he appeared on the battlefield with his staff at the decisive or critical moment of the battle. It is arguable whether his presence would have made any difference given the moment and the limited communications, yet he understood that his presence could become necessary to deal with unforeseen circumstances.

There are two other plausible hypotheses for his presence on the battlefield. First of all, he wanted to see with his own eyes whether his command method worked in the face of battle. Secondly, with his presence, he wanted to assure that his subordinates executed the orders as they were told to do. In this last option, he demonstrated that he controlled the fight to a certain extent.

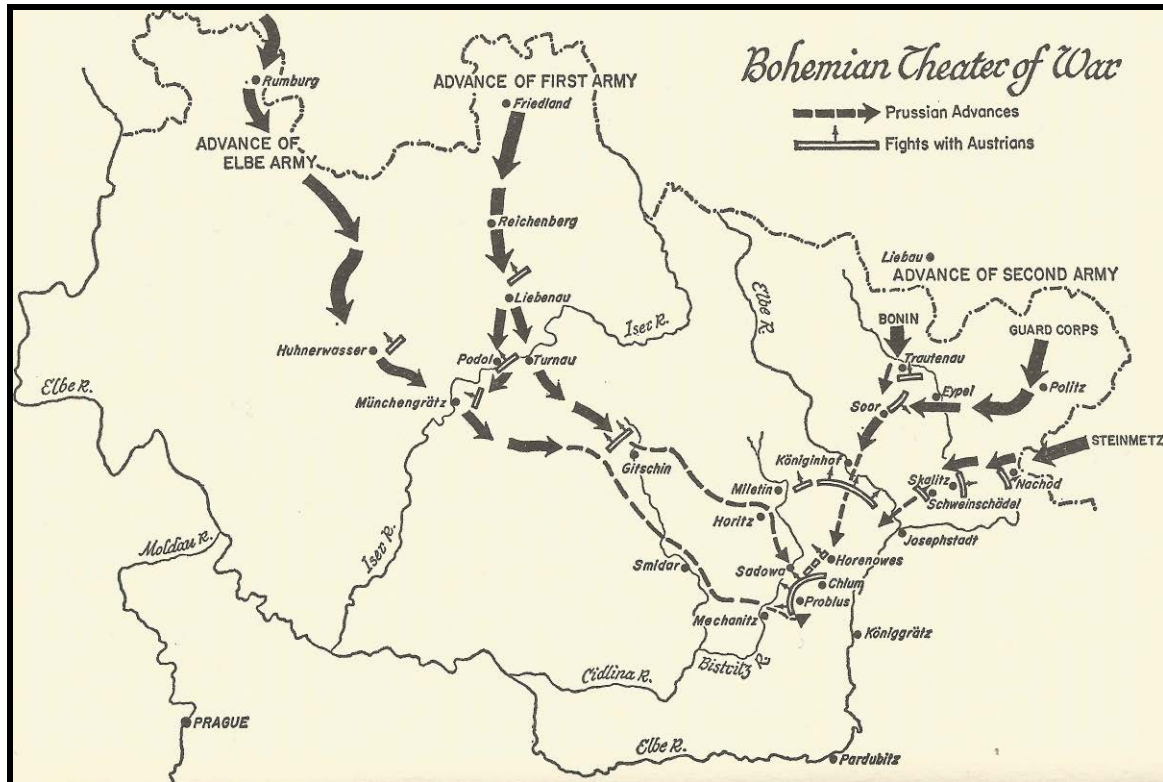


Figure 3. The advance of the Prussian Army to Königgrätz

Source: Gordon A. Craig, *The Battle of Königgrätz, Prussia's Victory over Austria, 1866* (Philadelphia, NY: J.B. Lipincott Company, 1964; repr. Greenwood Press, 1975), 56.

Performance

Notwithstanding the centralized operational planning, the battle itself displayed envelopment maneuvers and decentralized fighting, whereby local commanders took initiative. On the march routes to Königgrätz, First Army had to seize bridges to cross the Iser River. On June 26, 1866, the first real envelopment on small unit level took place in the city of Podol. 400 Prussians enveloped the Austrian front line by using an abandoned railroad bridge, while a fixing force continued to fire volleys with their breech loaders at the Austrian defense. This forced the local Austrian commander, General Clam-Gallas, to

deploy the brigade's reserve against the Prussian assault. The Austrians conducted three frontal attacks, and though the Prussians ultimately had to retreat because of insufficient ammunition, they repulsed all attacks and defeated 2,000 Austrians. Without a remaining significant reserve, the main body of Prussian General Heinrich Horn's 8th Division pushed the remaining Austrian defense away from the Iser and took control of the bridge.²¹

Though Moltke decentralized much of the actual fighting, he also intervened where necessary. Indeed, Prince Frederick Charles thought that First Army could conduct a frontal attack to defeat the enemy across the Bistritz River. By ordering his troops forward, he endangered the operational concept because such action left his east flank vulnerable to an Austrian counter-attack. Moltke, who had a better perception of the battle space, could not cancel the prince's orders, because this would generate confusion on the eve of battle. On the contrary, he adapted his plans and ordered the Crown Prince to bring Second Army much more quickly to the Austrian right flank and provide a supporting detachment to First Army's left flank. This maneuver significantly reduced the Prussians' possibility for a complete encirclement of Austria's Northern Army.²² On the morning of July 3, Moltke, Bismarck and King William visited the commander of First Army, where the following discussion took place:

Bismarck spurred his horse over to Moltke and asked: 'Do you know how long this towel is whose corner we grabbed here?' 'No,' answered the Chief of Staff 'we don't know exactly; only that it is at least three corps, and that is probably the whole Austrian Army.'²³

It now became clear to Prince Frederick Charles what his actual mission was, namely to fix the Austrian Army and allow Elbe Army and Second Army to attack the Austrian

flanks and destroy the Austrian Army in the Bistritz pocket. Prince Frederick as did Moltke understood that First Army would sustain heavy casualties.

In contrast to Prince Frederick Charles, the commander of 7th Division, General Fransecky, demonstrated more tactical and operational comprehension of Moltke's plan. He understood the importance of fixing the Austrians in the vicinity of Benatek until Second Army arrived over his left flank.²⁴ In one of the heaviest fights, the battle for *Swiepwald* and *Cistowes*, Fransecky took the initiative to coordinate directly with 8th Division of Second Army and exposed his unit to considerable risk when pushing further into the forest than planned. This terrain feature became the axis around which the sickle shaped maneuver would take shape later that day and allowed Second Army to envelop the Austrian Army. Indeed, from the moment 7th Division's advance guard discovered the Austrians, Fransecky understood two things. First, the Austrian presence was much larger than expected, and secondly, the presence of such force endangered First Army's left flank. Six Prussian battalions attacked through the forest towards the urban area and pushed more than ten Austrian battalions away from this key terrain. They demonstrated their belief in achieving mission success. The commanding officer, Kolonel Zychlinski, and one of his noncommissioned officers wrote the following:

it was the kind of fight in which a commanding officer's authority was dissipated, the tactical units becoming progressively smaller, until in the end every man seemed to be fighting his own hand. . . . It was hardly possible for the officers to hold their columns together . . . but the rain of shells [from Maslowed] which came down on us and the boughs and tree splinters that flew at us from all sides drove us instinctively forward, in the sheer hope that, by pressing further ahead, we could get out of our critical position . . . Our higher officers (since there was nothing to command) could only influence the men around them by example on their personal bravery.²⁵

Although many officers were killed, the unit held the forest and the action had strategic and operational effects. Indeed, the Austrian IV Corps and II Corps started to concentrate on the small wooded area. The Austrians tried to recapture the dominating terrain with sheer power through frontal attack tactics without using terrain features or the vulnerable Prussian left flank. General Fransecky reacted as he had been taught, counterattacking the Austrian flank, and the encircled Austrians suffered more than 50 percent casualties. In the aftermath of this battle, the Austrians continued committing forces to regain their former positions and to destroy the positions of First Army in Maslowed and Sadowa. Fransecky barely held on and lost 84 officers and 2,100 men, but the 7th Division's fighting resulted in the desired effect.²⁶ The assault had weakened the Austrian reserve and their right flank significantly. By the time Austrian intelligence informed General Benedek, Chief of Staff of the Austrian Army, about the position of the Prussian Second Army, the *Feldzeugmeister* understood the severity of the situation. Austria's Northern Army risked total destruction because of the weakened right flank.

Second Army arrived around noon on July 3 and completed the envelopment. At 3:30pm, King William ordered an advance by all units, whereby Elbe Army attacked from the southwest to the northeast, First Army crossed the Bistritz from east to west, while Second Army continued from north to south. The Austrians were completely confused and overrun within a matter of hours when confronted with this three-directional attack.

Notwithstanding the success of this attack, the Prussians could not pursue the Austrians for three reasons. First, the concentric maneuver towards Königgrätz made it difficult to pivot in a new direction, especially for Second Army. Secondly, the forced

marches of the Prussian armies during previous days had exhausted the soldiers. Thirdly, Austrian cavalry and artillery prevented such a maneuver because of the retrograde fight they conducted.²⁷

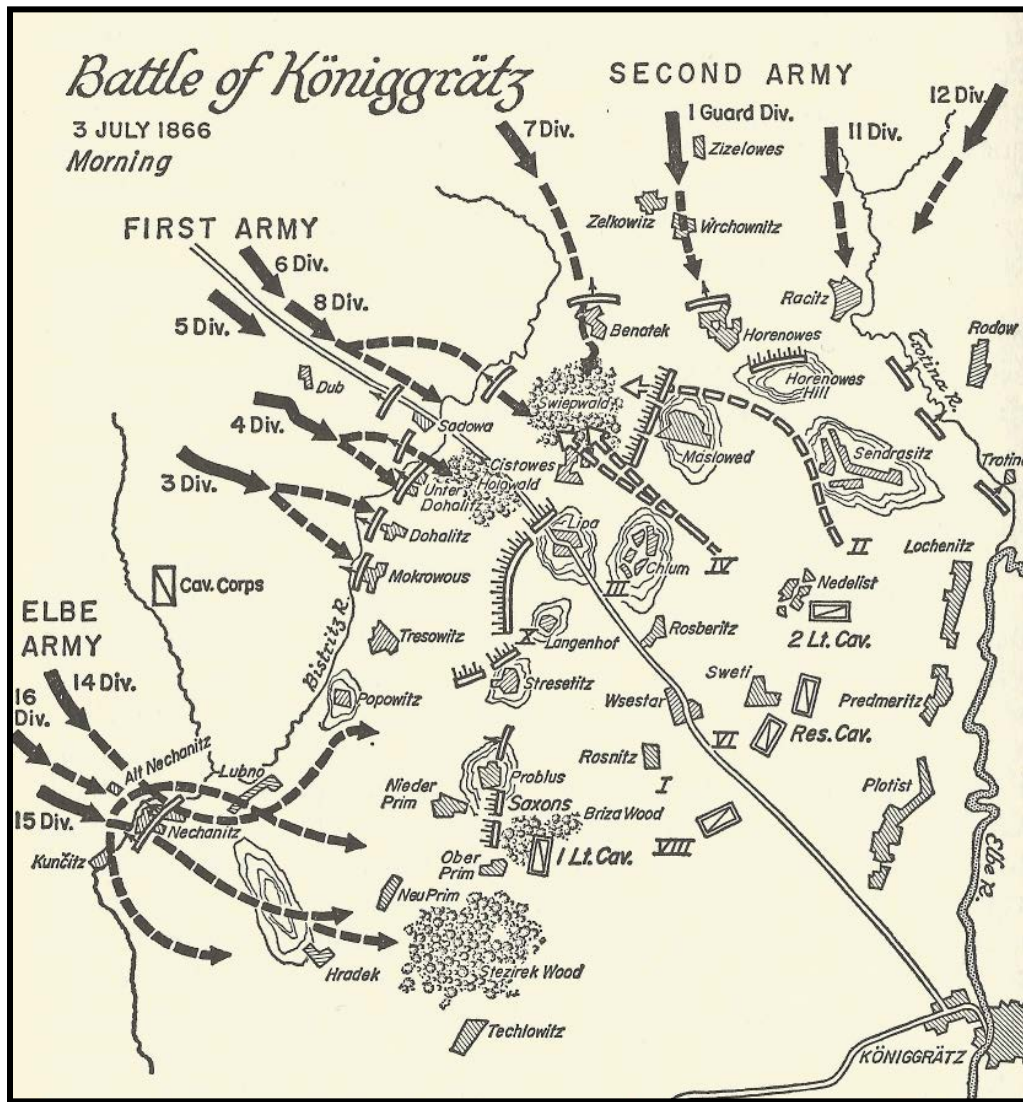


Figure 4. The Battle at Königgrätz: Situation and Plan on July 3, 1866

Source: Gordon A. Craig, *The Battle of Königgrätz, Prussia's Victory over Austria, 1866* (Philadelphia, NY: J.B. Lipincott Company, 1964; repr. Greenwood Press, 1975), 92.

Outcome

The Austrian and Prussian Armies brought in total over half a million men on the battlefield around Königgrätz. Notwithstanding this number, the amount killed, wounded and missing soldiers remained fairly limited, totaling 27,656 or around five percent. One of the reasons for this low casualty rate probably resides in the limited number of frontal confrontations, the inaccuracy of artillery, and the fact that Benedek did not reorganize his army behind the Elbe to continue the fight from a new defensive position.²⁸ Yet, this last remark made by Arthur L. Wagner remains questionable. The Austrian Northern Army stood in shock, totally disorganized and demoralized. Moreover, this army contained multiple ethnicities (Hungarians, Saxons, Bohemians, etc.) with different languages. In those conditions, organizing a hasty defense would therefore only result in defeat.

The analysis of the campaign leads to three critical remarks. First of all, the artillery was not yet used to its full capabilities in supporting the infantry attack. Prior to this battle, military tactics focused their attention on the effective use of artillery in the defense, not in the offense. Although the Prussians did not use the smoothbore 12-pounder in its full capacity, they continued the conversion of their artillery to the Krupp cast-steel cannon.²⁹ Later in time, the employment of artillery in the offense would improve. Secondly, cavalry did not play a significant role. Indeed, the Prussian commanders had not engaged their cavalry units as reconnaissance assets or in pursuit of the retreating Austrian Army. If they had done so, the cavalry probably could have provided better situational awareness of the battlefield and the opponent to the commanders and could have inflicted more damage to the retreating Austrian units. Yet,

the most important critique remains that centralized planning based on rigid timetables incorporated high risk, in case troops do not show up on time on the battlefield. Second Army's advance was significantly slower than anticipated and only arrived on the battlefield just in time to protect First Army's left flank.

To conclude, the Prussian Army's victory at Königgrätz resulted in a shift in strategic balance of power in Europe and showed the operational and tactical efficiency of the reformed Prussian Army. Indeed, Austria could no longer claim leadership of the German states, and Bismarck assured unification of the North German Confederation under Prussia's leadership. Prussia became Germany.

The main importance for this study, however, remains its operational and tactical implications. Indeed, during the battle, the needle-breech loading gun demonstrated on numerous occasions its superiority against the muskets. Furthermore, the tactical procedures of the Prussian officers exceeded those of their Austrian counterparts, even in those situations when technological superiority failed. Thanks to the efficient training and education program, Prussian leadership demonstrated far better skills in positioning their units and maneuvering across the battlefield. Commanders in front were able to take initiative to make those decentralized movements and actions possible. More importantly, superiors would verify whether the subordinate clearly understood the mission and the purpose of the operation. Shared experiences and trust amongst commanders became therefore essential. Moltke gave his most able and trustworthy commanders, such as the Crown Prince Frederick William, the most difficult or independent missions.

J. F. C. Fuller criticized Moltke for not taking his responsibility.³⁰ However, after analysis of the battle one can only conclude this opinion holds no value. Moltke did take

the responsibility on numerous occasions and directly controlled the operation when he deemed necessary. He was willing to accept risk within an uncertain environment, and he accepted the responsibility that goes along with that. Moltke clearly recognized that First Army and General Fransecky's 7th Division would sustain heavy losses, yet his situational understanding and his perseverance led him to take that decision. Or, as one of his assistants said: "Your Excellency, you are now a great man. But if the Crown Prince had arrived too late, you would be the greatest scoundrel in the world!"³¹

The Helmuth von Moltke command model

In the aftermath of the battle, Moltke gained prestige and fame with his victory. Prussian and international authorities decorated and honored him with distinguished titles, which ranked him high on the protocol order. He retained his position as Chief of Staff of the Prussian Army and assured an unimpeded integration of his new concepts in tactics and operational warfare. A strong nucleus of war-experienced officers emerged. It became important to remember the lessons learned without falling into Jominian reasoning that seduces officers to think according to a single set of rules that deals with each situation in a similar way.³² This was absolutely against Moltke's nature, who firmly believed that every situation required a different treatment and therefore needed thorough analysis and study. Consequently, the General Staff expanded to 100 positions and the corps and division staffs augmented significantly to assist a commander in taking decisions.³³

This paragraph will examine the Field Marshall's literature and writings in which he provided guidance and directives concerning command and staff work methods. Before starting this analysis, the reader must know that the damage to the German

national archives, *Reichsarchief*, in World War II destroyed a number of the original transcripts. Additionally, the German Staff College probably edited some of Moltke's works after his death to honor his vision and to incorporate the Prussian officer corps' general view on tactics into Moltke's legacy.³⁴ Yet, the basic thought of his work remains valid, based across the different readings and literature.

Moltke wrote and spoke on a diverse number of topics, which demonstrates his intellectual capabilities. To remain within the boundaries of this study, this paragraph will only investigate Moltke's vision on command, staff composition, the use of technology on the battlefield, and instructions for large unit commanders. He shaped his vision on two paradigms. First, Moltke had no faith in any fixed system or set of rules to provide the solution for a problem, and secondly, he accepted the existence of uncertainty when executing a plan.

Despite these directives and guidelines, several commanders did not always comprehend the advantages of the new tactical and operational approach. Some just failed to obey the regulations by stubbornly conducting frontal attacks. Prince Frederick Charles, for example, would lose more men in the Franco–Prussian war of 1870 during the battle at Wörth than the entire Prussian force during the battle at Königgrätz.³⁵ Eventually, Moltke's strategy and tactics prevailed in Sedan and Metz, which leads one to conclude that initiative, analyzing circumstances and providing clear directions to troops remained the way ahead for the German Army.

The role of the commander

Above all, the role of a commander is to command his subordinates and to prevent things to follow their own course.³⁶ Despite J. F. C. Fuller's critique, Moltke

explains that a commander certainly must take responsibility, and that decentralized operations do not relieve a commander from accountability. J. F. C. Fuller 's argues that the Prussian education system created irresponsible non-fighting officers that focused on doctrine.³⁷ As pointed out during this essay, this is not the case. Fuller is right in the sense that the German officers also struggled with transformation and other more difficult thinking patterns.

Moltke provides two ways to command: through general directives or definite orders. General directives contain information to allow subordinate commanders to plan their mission independently. They enable commanders to organize their units for battle and to prepare the upcoming operation. Definite orders are more detailed instructions to direct future actions, concerning time, space, and coordination. Here, Moltke makes the distinction between operational level and tactical level. Below the level of corps, commanders distribute definite orders. However, in both systems he argues for simplicity, clarity, and confident orders without too many details. In his vision, detailed orders prevent flexibility during operations. Indeed, because Moltke accepts uncertainty, he wants to maintain the ability to react in that environment. Moreover, if during the course of action, too many details change or a commander intervenes too much, this would create confusion and demoralization.³⁸

On the whole, the advantage the leader believes he has by continually interfering personally is in most cases only an apparent advantage. In doing so he performs duties with which others are charged, forgoes more or less their help and increases his own work in such a measure that he finally will be unable to perform all of it.³⁹

An order is actually the written or verbal communication of a certain decision, and results from thorough analysis. According to Moltke, a thorough understanding of the

situation is key for good decision making, and comes from mental calmness and physical power, two qualities that relate to Clausewitz' military genius model. He therefore sets forward the following guidelines: commanders on the battlefield must understand the situation of their unit and their neighbor, create a mental picture of the situation, permanently assess their situation, and communicate with their neighbor and commander. This is reflected in Moltke's Military Works. "The more similar the picture which all portions of the whole—the higher and the lower leaders—make to themselves of the situation, the easier and more correct all orders will be understood and the better will the team-work be."⁴⁰

Moreover, he expected that each headquarters and every commander receives information on the intention of the higher headquarters, and did not merely repeat the instructions towards the lower echelons.⁴¹ This must assure unity of effort during the operation.

Because of the changing circumstances, Moltke claimed it was impossible to rely on a set of binding rules that lead to a solution. "In war everything is uncertain as soon as operations commence, except that which the commander-in-chief carries himself in will and energy."⁴² A study of the environment, combined with the agility and adaptability of the subordinate commander to act, and based upon accurate reporting, will provide the basic elements towards a solution. It will enable a commander to develop a view to reach victory and prevents an opponent who experiences the same uncertainty to impose his will on the battlefield.⁴³

Moltke understood the challenges that subordinate commanders faced in battle and that merely relying on trust and instinct cannot lead to the desired result. Indeed, the

reality remains that not every commander is a genius and therefore, those average commanders need assistance from an educated and trained staff.

The role of a staff

The staff's major role entails advising the commander with clear and a limited number of ideas. Indeed the more ideas that staff officers generate, the more it can confuse a commander and drive him away from the objective of the mission. Moltke resented staff officers who merely pointed out the problems of a course of action, instead of handing him a solution or helping him to solve the problem. He advocated *Unternehmung*, or undertaking, which actually refers to initiative, audacity or enterprising.⁴⁴ It is therefore important for the staff to assist the thought process of the commander and that of the subordinate commanders.

As seen above, Moltke focused on information sharing between units and commanders. To enable this, the Prussian army created a system with specific staff officers whose job encompassed reporting to the higher headquarters. They named it the directed telescope. Specially selected, highly qualified, and trustworthy young officers became sensors for the commander on the battlefield.⁴⁵ Their mission consisted in supplementing the higher commander with additional information on the frontline. They were highly respected officers who possessed good analytical skills and contributed to the overall mission.⁴⁶ Moltke hereby demonstrated the friction between decentralization and retaining control. Indeed, though he wanted to conduct tactical and operational actions through decentralization, he wished to preserve a direct link to the front in order to take timely correct decisions.

Influence of technology

According to Moltke, the value of technology lies in its practical application. If the military cannot use technology appropriately, it has no place on the battlefield.⁴⁷ Indeed, the needle gun to achieve fire supremacy, the use of railroads to move troops around, the invention of the telegraph to communicate, and to a certain extent the premature use of balloons to provide surveillance on the battlefield are a few examples. The application method of technological inventions can determine the campaign outcome, in other words, people who know how to use technology most effectively can achieve victory. The Russian Major General Dragomirov, observer of the battle of Königgrätz, wrote the following to the Russian tsar: “It wasn’t the needle gun by itself that won the victories of 1866, but the men who carried it.”⁴⁸

Moltke opined that the way an invention is used should be left to the military.⁴⁹ Nowadays, this statement seems obsolete. Today, however, technological innovations led to the creation of weapons with such devastating effects, like personnel mines, nuclear weapons, and chemical ordnance that countries agreed to limit the use of certain weapon systems. Society imposed the military restrictions on using certain type of weapons. Moreover, Moltke could make such statements, as the Prussian military community had become very independent during his reign, in contrast to other European countries.⁵⁰ The German military’s independence from political interference continued to exist until the Nazi party took control over the Weimar Republic in 1933. What is more, such liberty to perform has become almost unthinkable in current Western democracies, where politics and public opinion refrain the use of force by imposing rules of engagement and other regulations. The example above shows how far Moltke’s obsession for independent

thinking and operating went. Today, military commanders should interpret this freedom of action within the legal limitations imposed by their governments and through international and humanitarian regulations.

Tactical preparations

The problem now arises, how to prepare and train a unit for diverse circumstances and rapid change. First of all, discipline assures execution of the mission.⁵¹ Indeed, soldiers have to work together to provide mutual support, acquire fire supremacy and move around the battlefield in formation to provide protection to each other. What's more, a certain restraint ensures the execution of difficult missions and the knowledge of technical procedures. Additionally, discipline contributes to teamwork and *esprit de corps*. Apparently, this contradicts Moltke's other guideline: to allow the greatest independence to every officer. Truly, the officer must encompass the critical skills to apply the order given to him within the situation in which he finds himself. Yet, the warrior elements of the military genius and soldier, discussed in chapter 2, require discipline to achieve the necessary qualitative fighting skill to survive in combat. The execution of the order remains essential, the execution method can vary.⁵²

Therefore, Moltke advocated that orders should contain no more than strictly necessary and avoid directives too far in the future. In Moltke's reasoning, this is logic, as he firmly believed in the uncertainty of events. Moreover, if a commander dictates too much, the subordinate would get confused about the task he has to perform. It is therefore wise to prepare commanders, staff officers, and subordinates in writing with the same vocabulary and issuing the same verbiage. Also, the higher the authority, the more

general the orders should become. In that way, the subordinate retains freedom of action which allow him taking initiative.⁵³

Moltke did not address initiative specifically. He actually called it the duty of every leader. The only guideline he specified was the following:

If nothing is ordered, the order of battle is valid. If the chain of command is lost, it is everyone's duty to restore it,[and] especially is the duty of the leaders of small detachments, which, particularly in an engagement, are dissuaded by their subordinate units. Such leaders should not allow themselves to be searched after but should eagerly return to the struggle under the command of their nearest superior.⁵⁴

Allegedly, Moltke did not provide a clear answer for preparing units. On one hand, units need to train within a disciplined framework to assure mission accomplishment and structure to the organization. On the other hand, officers need certain liberty to enable transition from one situation to the other. Yet, this thought process and mentality continued to drive the success of the German Army in the nineteenth century.

Moltke's legacy

Helmuth von Moltke's merits to German history, military theory, and application remain significant. The German Army changed its command structure successfully, adapted its education model to provide skilled officers, and proved its capability to integrate the technological innovations of the industrialization into its organization. As of then, commanders' and staff officers' role incorporated to understand the situation, to assess the conditions, and to provide accurate, timely decisions and directives to subordinates. Such capabilities required educated, independent thinking officers, who can

adapt to situations and think critically on problems. Furthermore, mass fire and incorporating technological advantages in the decision process can provide victory.

Moreover, it had become clear that larger armies would become necessary in war in order to achieve the strategic success and that wars enclose a succession of battles on small and larger unit level. Those larger armies required leaders who understood how to achieve mission success, the strategic environment in which they operated and the difficulties of communicating orders. Orders were based on clear vocabulary in which a commander designated a task to a subordinate, together with the aim of operation, without telling how to conduct the operation. Commanders accepted this responsibility fully. Small unit tactics and initiative on lowest level became more important and decisive in the overall campaign. Though Frederick the Great and Napoleon probably remain the founders for operational art, Moltke laid the foundations for modern campaign planning and staff work.

Helmuth von Moltke transformed the German Army to the most adaptable, innovative armed organization for more than 60 years, in which mission command philosophy played a key role.

The paradigm army: the German army in 1940

After World War II, many Western military theorists and historians concluded that *Blitzkrieg* and *Auftragstaktik* constituted the main elements for success of Germany's military units at the outbreak of hostilities. Actually, the principles for modern combined warfare and command philosophy resulted mainly from an organization that learned from its experiences during the Great War.

Though Moltke favoured decentralization and enveloping the enemy, Germany was unable to achieve decisive victory against France and the British Expeditionary Force in 1914-1915. Although, by 1918, the German officers demonstrated far more superior tactical and operational skills to overcome the stalemate in the trench warfare than their opponent did, they never attained significant strategic or political victory. Despite their skills in adapting doctrine and the German territorial gains during the battles in the spring of 1918, the German Army lost the initiative to the Allies because of inferior resource capabilities.

During the initial years of the war, the Germans adapted to the trench warfare by improving their defensive tactics. Ludendorff created the defense in depth, in which German frontline units traded terrain for maneuver space to allow units sufficient battle space for a counterattack. However, a successful counterattack not only relies on terrain, its success depends heavily on timing and initiative. Therefore, the higher command reserved specific troops to conduct the counterattack in the sector of a subordinate unit. The subordinate commander received those troops under command to repel an enemy assault in the way that he thought the battle conditions evolved. Ludendorff called it the “individualization of tactics.”⁵⁵

By 1917, the Germans wanted to regain the initiative and force a decisive victory. Yet, enveloping tactics had become virtually impossible on every level, so German leadership focused on penetration as a means to achieve victory or a way out of the operational impasse. The purpose of this new operation existed in achieving a strategic breakthrough by surprising the enemy with an enormous amount of artillery fire. Small unit attacks immediately following the artillery barrage had to penetrate the defensive

positions, roll up the trenches in support of neighboring units and destroy enemy communication nodes in depth. These missions could only be entrusted to small unit leaders who possessed the skills and training to act independently. Indeed, the absence of adequate and reliable radio communication equipment made communications with those small units basically impossible. Moreover, they could not establish a wired telephone connection, as speed during execution remained crucial.⁵⁶

This new doctrinal approach emphasized decentralized procedures, whereby the subordinate understood his mission and the link between the tactical and the strategic objective. This organizational adaptability demonstrates the climate of the German military and the mutual trust amongst officers. Timothy Lupfer describes this as follows:

The process of developing principles to obtain this objective [destroy the enemy force] was a collective and corporate effort. Individual talents and personalities were essential, but the doctrine emerged in an atmosphere where ideas were discovered and shared, not invented and arbitrarily imposed.⁵⁷

Such a climate continued to exist after World War I and assured the unrelenting adaptation of doctrine. Moreover, technological innovations emerged out of World War I. Armored and tracked fighting vehicles, improved optics, and wireless communication systems could now improve the German tactics. Similar to Moltke's adaptations to the Prussian Army during the nineteenth century, General Hans von Seeckt implemented significant changes to the German Army. He believed command and control failures of commanders to seize and retain the initiative contributed to the downfall of the German western front offensive. The new tactics with *stormtroopers*, as described by Ludendorff and Geyer, required movement and mobility, and above all the new doctrine accepted friction and uncertainty as characteristics of warfare. These factors required

tactical leaders capable of making rapid battlefield assessments and issuing quickly an oral order to attack the enemy and destroy him or to seize initiative.⁵⁸

As a result, the German General Staff introduced a new document, “*Truppenführung*,” that formalized mission command philosophy within the German Army.⁵⁹ This document describes the requirements for junior and senior leaders and defines the circumstances how armies conduct war. The base parameter remains the acceptance of friction in war, and as a result the unit leader or commander must take action to overcome that friction and perform his mission.

Armies as well as lesser units demand leaders of good judgment, clear thinking and far seeing, leaders with independence and decisive resolution, leaders with perseverance and energy, leaders not emotionally moved by the varying fortunes of war, leaders with a high sense of responsibility.⁶⁰

This regulation, above all, warned leaders against adopting a textbook solution. The organisation expected from each leader the capability to analyze every single tactical problem within the current operational context and fully commit himself to an action.

Conclusion

This chapter investigated the original circumstances that enabled Helmuth von Moltke to change the Prussian Army into one of the most effective and efficient European armies between 1860 and 1943, as well as the command relationship Moltke established with his subordinate commanders. His ability to change the Prussian military in such a way remains remarkable. Indeed, his ability to understand the political and strategic environment, combined with his ingenuity to integrate new technological developments in tactical combat and on operational level, created a new generation of officers capable of facing new circumstances and achieving ultimate victory. The

introduction of the needle gun, the breech loaded field gun, the telegraph and the railroad required critical and creative thinking officers. Moreover, larger and more dispersed battle formations required independent officers who could work in the direction of the overall objective.

To sum up, in order to achieve mission success and implement successfully mission command, the Prussian-German officer the situation had to demonstrate a thorough understanding of the mission and the environment, take initiative to achieve the objective and assume complete responsibility towards the mission he gave to his subordinates and towards his superiors in case he wanted to alter the method.

Such principles can only subsist in a command climate that embraces and cultivates critical and creative thinking officers and where leadership considered doctrine as a guideline and not a dogma.

¹Arden Bucholz, *Moltke and the German Wars, 1864-1871* (New York, NY: Palgrave, 2001), 78.

²Justus Scheibert, *A Prussian observes the American Civil War: The military studies of Justus Scheibert*, ed. and trans. by Frederic Trautmann (Columbia, MI: University of Missouri Press, 2001), 53-58, 86.

³Ibid., 36.

⁴Ibid., 42.

⁵Ibid., 36.

⁶Bucholz, *Moltke and the German Wars, 1864-1871*, 79-80.

⁷Ibid., 83.

⁸Dennis E. Showalter, "The Prusso-German RMA, 1840-1871," in *The Dynamics of Military Revolution 1300-2050*, ed. by Knox MacGregor and Williamson Murray (New York, NY: Cambridge University Press, 2001), 108.

⁹Bucholz, *Moltke and the German Wars, 1864-1871*, 87.

¹⁰Ibid., 89.

¹¹Ibid., 97.

¹²Showalter, "The Prusso-German RMA, 1840-1871," 108.

¹³Arthur L. Wagner, *The Campaign of Königgrätz, A Study of the Austro-Prussian Conflict in the Light of the American Civil War* (Westport, CT: Greenwood Press, Publishers, 1972), 12.

¹⁴The available sources only mention an active component between 335,000 and 350,000. Only one source cites a total strength about 600,000.

¹⁵General Ludwig Benedek (1804-1881), or *Feldzeugmeister*, was the commander of Austria's Army of Italy in Verona and the imperial General Staff in Vienna. During the war with Prussia, he took command over the Northern Army. Several critics on the war consider him the main reason for Austria's defeat, though his rise within Austria's military was the result of a failed education and promotion system, a weak emperor and wrong strategic choices.

¹⁶Geoffrey Wawro, *The Austro-Prussian war: Austria's War with Prussia an Italy in 1866* (New York, NY: Cambridge University Press, 1996), 54-55.

¹⁷Gordon A. Craig, *The Battle of Königgrätz, Prussia's Victory over Austria, 1866* (Philadelphia, NY: J. B. Lipincott Company, 1964; repr. Greenwood Press, 1975), 19.

¹⁸Bucholz, *Moltke and the German Wars, 1864-1871*, 105.

¹⁹Craig, *The Battle of Königgrätz, Prussia's Victory over Austria, 1866*, 82.

²⁰Wawro, *Austro-Prussian war: Austria's War with Prussia an Italy in 1866*, 175.

²¹Ibid., 133-134.

²²Craig, *The Battle of Königgrätz, Prussia's Victory over Austria, 1866*, 85.

²³Ibid., 96.

²⁴Eduard Friedrich Karl von Fransecky became commander of the 7th Division, yet he previously had never experienced any command position. According to Gordon A. Craig he had the intellectual capacity and tactical understanding to overcome this shortcoming. Ibid., 104.

²⁵Craig, *The Battle of Königgrätz, Prussia's Victory over Austria, 1866*, 107.

²⁶Ibid., 110.

²⁷Wagner, *The Austro-Prussian war: Austria's War with Prussia an Italy in 1866*, 70-72.

²⁸*Ibid.*, 70-72.

²⁹Craig, *The Battle of Königgrätz, Prussia's Victory over Austria, 1866*, 174.

³⁰Daniel J. Hughes, *Moltke on the Art of War-Selected Writings* (New York, NY: The Random House Ballantine Publishing Group, 1993), 13.

³¹Craig, *The Battle of Königgrätz, Prussia's Victory over Austria, 1866*, xii.

³²According to Geoffrey Wawro, the German Army officer corps was a specific elite within German society, "a state within a state". Because politicians did not interfere with military affairs it could continue improving its efficiency, the Germans had an advantage over other nations who just copied the Prussian education and staff system, and the independent working of the General Staff. Wawro, *The Austro-Prussian War: Austria's War with Prussia an Italy in 1866*, 284-285

³³Bucholz, *Moltke and the German Wars, 1864-1871*, 144, 146.

³⁴Daniel J. Hughes, *Moltke on the Art of War-Selected Writings* (New York, NY: The Random House Ballantine Publishing Group, 1993), 16.

³⁵Wawro, *The Austro-Prussian war: Austria's War with Prussia an Italy in 1866*, 287.

³⁶Helmuth von Moltke, *War Lessons, Volume IV, Part II*, trans. by: Harry Bell (Berlin: The Great General Staff, Military-Historical Section I, 1911), 25.

³⁷John F. C. Fuller, *Generalship-Its Diseases and Their Cure* (Harrisburg, PA: Military Service Publishing Co.), 64.

³⁸Moltke, *War Lessons, Volume IV, Part II*, 21 and 23.

³⁹*Ibid.*, 20.

⁴⁰*Ibid.*, 28.

⁴¹*Ibid.*, 27, 29.

⁴²*Ibid.*, 29.

⁴³Hughes, *Moltke on the Art of War-Selected Writings*, 132-133. This document probably describes the first attempt of a design methodology as developed in US FM 5-0, *The Operations Process*, March 2010.

⁴⁴*Ibid.*, 77.

⁴⁵Gary B. Griffin, “The Directed Telescope: A Traditional element of Effective Command” (Fort Leavenworth, KS: US Army Combat Studies Institute, July 1991), 1.

⁴⁶*Ibid.*, 14.

⁴⁷Hughes, *Moltke on the Art of War-Selected Writings*, 257.

⁴⁸Craig, *The Battle of Königgrätz, Prussia’s Victory over Austria, 1866*, 174.

⁴⁹Hughes, *Moltke on the Art of War-Selected Writings*, 257.

⁵⁰Wawro, *The Austro-Prussian war: Austria’s War with Prussia an Italy in 1866*, 285.

⁵¹Hughes, *Moltke on the Art of War-Selected Writings*, 177.

⁵²*Ibid.*, 133.

⁵³*Ibid.*, 185-186.

⁵⁴*Ibid.*, 177.

⁵⁵Timothy T. Lupfer, “The Dynamics of Doctrine: The Changes in German Tactical Doctrine During the First World War” (Fort Leavenworth, KS: US Army Combat Studies Institute, July 1981), 20.

⁵⁶*Ibid.*, 42-44.

⁵⁷*Ibid.*, 57.

⁵⁸Allen H. Skinner, “Transformation of the German Reichsheer” (Master’s Thesis, U.S. Army Command and General Staff College, Fort Leavenworth, KS, 2006), 33.

⁵⁹Germany, German Army, “Truppenführung (Troop leading)” *German Field Service Regulations*, Compiled by F. W. Milburn (US, October 17, 1933), 1-17.

⁶⁰German Army, “Truppenführung (Troop leading)” *German Field Service Regulations*, 1.

CHAPTER 4

APPLICATION OF MISSION COMMAND IN MODERN ARMIES

An army that adopts tactical doctrine that it cannot apply will greatly multiply its misfortune.

—Timothy T. Lupfer, *The Dynamics of Doctrine: The Changes in German Tactical Doctrine During the First World War*

Introduction

Nowadays, mission command has become common military language terminology in most Western armies' doctrine. Chapter 3 discussed the main elements of mission command based on Moltke's writings and actions on the battlefield. Only after his death, the German army implemented his concept into doctrine, which resulted in the *Truppenführung* regulation by 1933. Remarkably, American and British writers and analysts of military doctrine and theory introduced the term mission command or *Auftragstaktik* long after World War II.¹ However, do those armies actually mean the same thing by the term Mission Command?

Moltke's concept consists of three major parts. First, in order to provide troops with clear orders, subordinate commanders must possess a high degree of understanding of the mission and the environment. Secondly, commanders rely on initiative from subordinate commanders to execute the mission. Thirdly, commanders embrace trust and assume responsibility when needed. One critic of American tactics proposed a hypothetical historical example as illustration, based on what the critic perceived as differences between combat actions by German and American troops during World War II.

An American company commander would get the order to attack and secure a certain village. He would be told to use first platoon to flank and third platoon to attempt a frontal assault. Four tanks would be detached to his company to support the frontal assaults, which would be the main effort. After several hours, the company succeeded and the commander echoed for further orders.

A German company commander would get the order to secure the village by 1600 hours, period. Before the attack he would ensure that even a Grenadier knew what was expected from him during the attack. If his platoon commander and sergeant fell, the enlisted man had to take over.²

The example demonstrates the allegedly different approach to command culture within those armies. The question arises whether armies can adapt to a new command philosophy.

This chapter will investigate the problems that arise with interpreting and implementing other military organizations doctrinal concepts, studies different Western armies doctrine, and examines factors that influence the application of mission command.

Theoretical framework

Most organizations develop their own set of rules according to different parameters, such as their mission, history, culture, benchmarking, etc. Military organizations specifically show a certain tendency to base their doctrine on historical examples, learning from other successful armies, or simply different circumstances that forced them, like the former Soviet-Union states during the Cold War.

According to Eitan Shamir, three organizational elements determine and influence a successful implementation of new concepts. First of all, when a military organization recognizes a shortfall for which it does not have an existing appropriate solution of its own, it expresses the need to adopt a foreign or strange concept. Secondly, the organization needs to integrate that new concept. During this adaptation process, the

organization adjusts the imported concept to its own specific culture. Finally, praxis involves the ability of the organization to implement the foreign concept in combat. This three-phased concept, adoption-adaption-praxis, creates a certain dynamic. People within the organization have to change their behavior. Therefore, Shamir argues that mission command is interpreted and practiced differently in different armies due to the impact of particular strategic settings and organizational culture.³

These interpretations result in different understandings of the same concept by multiple organizations because of the specific environment in which those organizations operate. First, there exists a difference in how organizational level leaders and advocates for implementing new doctrine understand new concepts. Consequently, they provide the first strategic direction for implementing mission command philosophy. Hence, the first interpretation gap exists in the adoption of the original concept into the own organizations, due to translation and interpretation. The second gap lies mainly in the praxis. How does an army implement a concept through doctrine and training and execute it in operations? During this implementation, external and internal factors play a key role. Internal factors include education, training and personnel policies. External factors consist of the changing face of war or the civil-military relationships.⁴

The process of adoption-adaption-praxis creates different variants of mission command in analogy with the specific organizational culture and *modus operandi*. These differences become obvious when studying the doctrine of US Army, British Army, French Army, Israeli Army and the Belgian Army.

Though the application of mission command philosophy does not belong solely to a land force commander, this study will primarily refer to army documents, simply

because most of the writings focus on land units. Undeniably, mission command is applicable across all levels and services within the military organization as soon as commanders provide orders, whether the leaders receiving those orders command divisions, fleets or air forces. The mission command concept resides mainly within army doctrinal publications, simply because the army particularly deals with this concept upon the lowest combat formation and a land army is mainly human driven.

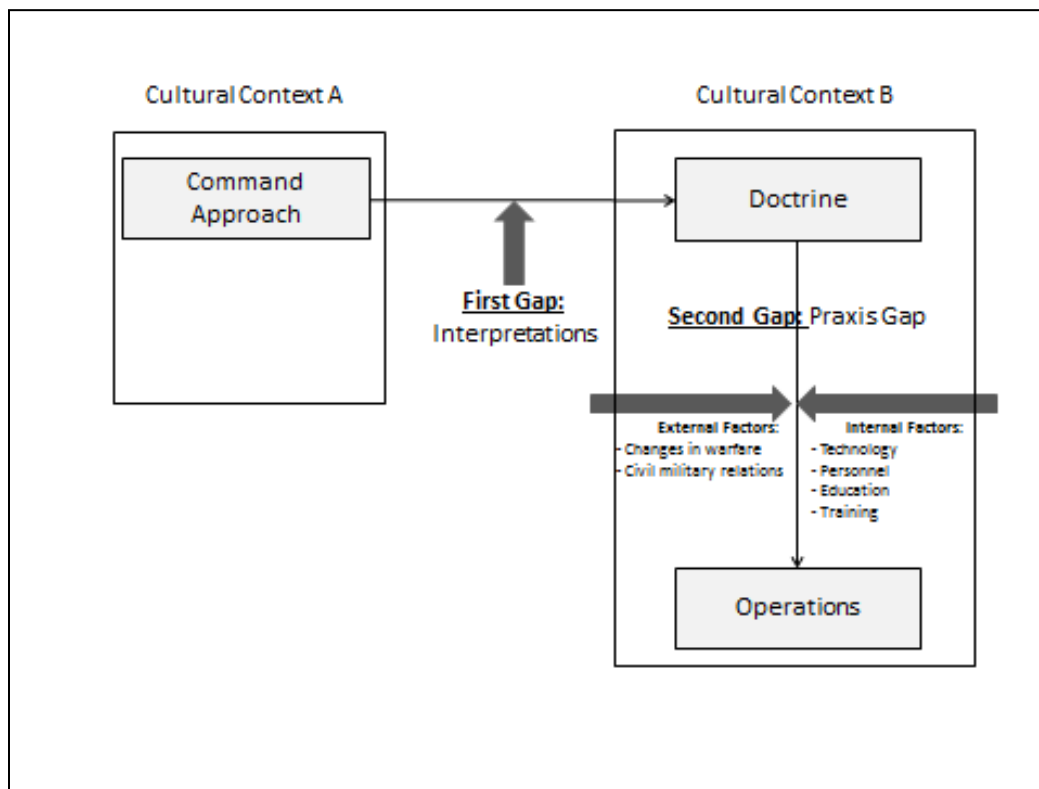


Figure 5. From Adoption to Adaption and Praxis: The Increasing Gap

Source: Eitan Shamir, *Transforming Command—The Pursuit of Mission Command in the US, British, and Israeli Armies* (Stanford, CA: Stanford University Press, 2011), 6.

Interpretation of mission command in Western armies

The following paragraphs examine how different armies describe mission command in their doctrine. This study will mainly focus on the result after adoption of mission command philosophy and the adaption of the concept to that specific organization's culture.

United States Army doctrine

The US Army went through significant changes after the Vietnam War. Not only did the army suffer from low morale and disciplinary issues in which command authority on all levels was tested, it also endured significant low battle worthiness. The US Army learned lessons from the Vietnam debacle and from the October 1973 war between Israel and its surrounding Arab countries. Those lessons oriented towards leadership and the use of technology on the battlefield.

The battlefield had become incredibly lethal with the appearance of new technological developments, such as precision ammunition and the prerequisite to synchronize different weapon systems towards one goal in order to effectively defeat an opponent. Not only did the Soviet Union outmatch the US technologically, it also outnumbered US and NATO forces. Above that, defense budgets would shrink the years after Vietnam. In the 1970s, General William Depuy and General Creighton Abrams recognized this environment and managed to overcome those challenges. In order to meet the operational circumstances in which soldiers had to fight, the US Defense apparatus would focus on two key aspects. Above all, to counter the outnumbered forces, leaders should receive an adapted education and training program that focused on developing adaptive, agile leaders. Initiative, creativity, and critical reflection on the use of terrain

and circumstances became the focus point, instead of cookbook-like solutions to all problems. Secondly, the US Army, even with reduced budgets, had to close the technology gap with its opponent.⁵

Some critics argue that the main component to defeat an opponent and reduce the friction and risks within combat rests in the school of thought that focuses on the use of and reliance on technology.⁶ According to the previous chapters in this study, such reliance remains risky and thus does not correspond to the reality of war. Like Moltke, Ludendorff and Seeckt proved that such overdependence does not guarantee success without proper human intervention on the method of employing such technology. As a result, this study will continue to focus on the command aspect, as this initially laid the foundation for mission command in current US doctrine. Furthermore, this paragraph will continue with the description from an army perspective.

According to the 2011 ADP 3-0, Mission Command belongs to the foundations of unified land operations, next to initiative, decisive action, and the army core competencies (combined arms maneuver and wide area security). The US Army believes that mission command “guides leaders in the execution of unified land operations.”⁷ ADP 3-0 describes the mission command as a philosophy as follows:

[Mission command philosophy is] the exercise of authority and direction by the commander using mission orders to enable disciplined initiative within the commander’s intent to empower agile and adaptive leaders in the conduct of unified land operations.⁸

The following five principles provide the foundation for mission command as a command philosophy: build cohesive teams through mutual trust, create shared understanding, provide a clear commander’s intent, exercise disciplined initiative, use mission orders, and accept prudent risk.

Furthermore, US doctrine uses the same terminology to describe the warfighting function of mission command.

The mission command warfighting function develops and integrates those activities enabling a commander to balance the art of command and the science of control. This fundamental philosophy of command places people rather than technology or systems at the center.⁹

Mission command as a warfighting function consists of two elements: mission command tasks and the mission command system. The commander has a task list to assist him in organizing staff activities and regulating the interaction between staff, commander and subordinates.¹⁰ The commander ensures he understands his mission and the environment, leads and develops teams, and drives the operations process. This is a typical Jominian doctrine style, which does not correspond to the intentions of Moltke as previously discussed. Moreover, the US doctrine describes the commander's responsibility to create a shared understanding with his staff, to provide a clear intent to his staff and subordinate commanders and more importantly to accept prudent risk.¹¹

The 2012 ADRP 6-0 describes the mission command system as “the arrangement of personnel, networks, information systems, processes and procedures, and facilities and equipment that enable commanders to conduct operations.”¹²

This view diverts noticeably from Moltke's concept, which aimed to limit the impact of a dogmatic, and at some occasions stigmatic, doctrine in order to ensure liberty and creativity for the commander based on their proper assessments. The US doctrine tries to systemize a commander's thinking process, yet it neglects partially the true role of a commander in a complex environment, namely a personal reflection on the situation and taking the decision with responsibility, without being put in a systematic process.

Such a managerial approach probably works very efficiently in a wartime environment

with unlimited resources that support every course of action, with superiority in technology and numbers and within a climate that fosters this type of command. As soon as those elements are no longer present, commanding will have to rely on the ingenuity of the individual to reach an adequate solution according to a set of principles. On the other hand, such a systematic approach helps junior commanders to develop their situational awareness and assist them in their decision-making.

British Armed Forces doctrine

The British Army incorporated mission command officially since 1987, five years after the Falkland War with Argentina.¹³ The Battle of Goose Green on May 28 and 29, 1982, remains a mythic and crucial moment in recent British warfare that influenced British doctrine significantly.

Lieutenant-colonel H. Jones, commander of the 2nd Battalion of the Parachute Regiment, had an authoritarian command style and relied on rigid, centralized planning in which he wanted to control everything personally. As of the first contact with Argentinian forces, his plan to capture the village of Goose Green failed. Despite the detailed planning, firepower superiority and the absence of losses, the assault stopped because of his subordinates' inability to take initiative. Jones personally came up front, yet the enemy surrounded him. Though his subordinates urged him to change his plan, he refused bluntly by shouting: "Don't try to tell me how to fight my battle!"¹⁴ Finally, Jones was mortally injured and the maneuver of 2nd Battalion stopped. Major Chris Keeble, second-in-command and a *Bundeswehr Kriegsakademie* graduate, took over. The short lull in the fight provided Keeble time to adapt the plan and he resumed the mission by anchoring the responsibility of the attack to his unit on front. He delegated new

missions and orders to his commanders and captured the Goose Green area a few hours later. This victory reflected not only the results of the change in command style, but also the ineffective command style of the Argentines. They did not take advantage of the opportunity to counter-attack the moment they injured the commanding officer of 2nd Battalion.¹⁵

The British forces learned considerably from this battle in particular and the war in general, and thus they reviewed their doctrine. First of all, the UK mission command philosophy is the second tenet of British Army's approach to operations.

Mission Command is a philosophy of command, with centralized intent and decentralized execution, that is particularly suitable for complex, dynamic and adversarial situations. . . . Mission Command focuses on outcomes, as it stresses the importance of understanding what effect is to be achieved, rather than specifying the ways by which it should be achieved.¹⁶

This [mission command] philosophy is designed to promote a robust system of command, balancing unity of effort with freedom of action at all levels. It requires the development of trust and mutual understanding between commanders and subordinates throughout the chain of command. The exercise of command requires timely and effective decision making based on initiative and creativity, leading towards the achievement of objectives and, first among them, a specified Main Effort.¹⁷

Furthermore, the British ADP- Operations describes six principles for mission command: unity of effort, a specified main effort, freedom of action, trust, mutual understanding, and timely and effective decision-making.¹⁸

British doctrine focuses on similar principles as described in the conclusion of chapter 3. However, it underestimates the understanding of the mission and environment, a key principle of Moltke that enables the higher commander to achieve the desired end state. Nevertheless, the UK doctrine embraces organizational climate as a key element. Indeed, organizations can achieve successful mission command only when they cultivate

conditions in which commanders and subordinates understand each other and show willingness to cooperate. The British acknowledge that they created a compromise between the Prussian general staff system and British culture in order to fit mission command into their army.¹⁹

French doctrine

In 2010, the French army released a series of new doctrinal documents based on experiences from several peacekeeping operations in Southeast Europe and Africa, and from their involvement in counter-insurgency operations in Afghanistan. Though the French Army has a long history in counterinsurgency, including Indo-China in the nineteenth and twentieth centuries and operations in Algeria from 1954 to 1962, it seems that the French army was not able to incorporate mission command until the integration of France as a full member of the NATO alliance in 2009.

One of the leading figures to implement mission command was General Vincent Desportes, director of the French Joint Defense College, *Collège Interarmées de Défense*, between 2008 and 2010 and director of the *Centre de Doctrine et d'Emploi des Forces* (CDEF) between 2005 and 2008.²⁰ With his book *Deciding in the Dark*, he describes the foundation for French doctrine on mission command. His predominant axiom consists of “uncertainty is inherent in war.”²¹ Desportes argues for structural measures, such as flexible planning and adaptable tactical formations.²² Furthermore, he seeks to impose cultural measures that develop initiative and embrace a culture of risk-taking.²³ The French FT-05, The Tactical Commander’s Guide to Command and Control Operations, contains those elements. However, the French doctrine must be seen with the following

background information provided by Brigadier General Olivier Tramond, Director of the CDEF, in which he provides guidelines on how to read and use doctrine.

Backed up by historical examples, it is first and foremost intended to provide food for thought for our officers, in particular the youngest of them, but also for each and every commander who may one day be called upon to exercise command and control of operations.²⁴

French doctrine describes explicitly two ways to command: detailed command or command by order and mission command or command by objective. The French Army maintains the command by order style, based on a high degree of formal discipline and hierarchy within its doctrine, as it believes that some situations require centralized action to enforce certain decisions.²⁵ Even Moltke retained this command style on some occasions as discussed in chapter 3.

The second command style advocated in FT-05 is mission command or command by objective. The translation of *Auftragstaktik* into command by objective clearly incorporates the purpose or the goal of the action that is required from the subordinate.

Mission command is always based on a concept of operations clearly expressed by the commander and rests on the initiative granted to subordinates, their intellectual discipline and their responsiveness to reach the goals set by the higher echelon.²⁶

French doctrine puts emphasis on the use of principles rather than setting up a dogmatic system. They focus on three principles: freedom of action to guarantee initiative, economy of force by adapting available means through dialogue with subordinate commanders, concentration of efforts through a clear commander's expression. Commanders implement those principles based on mutual trust in which the commander assumes his responsibility and a subordinate commander adheres to a strict intellectual discipline in carrying out his orders.²⁷

Though the French doctrine accepts friction and uncertainty in war, the French still retain a directed, centralized command culture. Furthermore, the French Army does not address understanding the environment or mission significantly, as it only mentions the need for intellectual honesty from subordinates in order to follow the three principles. According to Moltke, understanding the role a commander plays within the overall strategic-operational-tactical environment remains a key tenet that enables mission success. Above that, the French Army missed the opportunity to broaden the title of the doctrine, as it only refers to tactical commanders. As seen in chapters 2 and 3 above, mission command specifically relates to command functioning on the operational and strategic levels. Notwithstanding this critique, the French doctrinal concept follows a Moltke style, leaving much latitude to subordinate commanders.

Belgian doctrine

After suspending conscription in 1992, the Belgian Armed forces went through a number of changes. The army had to redefine its mission and roles within society and the political, strategic environment after ending the Cold War. The Belgian Army struggled significantly with its new role due to a lack of clear political vision until 2003, and due to the traumatic events that happened during the Rwanda crisis in 1994. At the outbreak of the genocide in April 1994, fourteen Belgian paracommando soldiers, operating for the United Nations Peacekeeping Force UNAMIR,²⁸ were cruelly tortured and slaughtered. As a result, the political environment did no longer favor major deployments and combat actions. The paradigm mantra for the Belgian political environment, and to a certain extent a significant part of the public opinion, became a zero casualties concept.

The new type of operations that marked the start of the twentieth century, the interventions in Kosovo and Afghanistan, changed Belgian military and political strategy. In 2003, the doctrinal impasse in the army faded out with a transformation plan that would prepare and change the Belgian army in order to face the current threat environment. Indeed, combat units of the army shifted from mechanized formations to a medium role, and the joint staff and maneuver school took time to review doctrinal publications. A country with a small army, restricted resources and limited experience tends to look towards its allies. Belgian officers consulted publications and documents from paradigm armies such as the US Army and British Army, but more importantly from the allied organization to which they belong, namely NATO.

Mission Command includes the decentralized execution of operations where the subordinates have the responsibility to take maximum initiative, taking into account the commander's intent, the commander's planning guidance and the end state.²⁹

Belgian doctrine establishes its doctrinal principles based on the adage of uncertainty. First of all, mission command requires timely decision in the absence or incompleteness of information. Secondly, the subordinate commander must understand the higher commander's intent. Thirdly, it is the subordinates' responsibility to achieve the commander's objectives. Finally, mission command relies on the commander's determination to execute the mission until successful completion.³⁰

In Belgian doctrine, the commander relies on the initiative and skills of his subordinates to understand the mission and to coordinate mission execution according to the commander's intent, mission and allocated resources. Therefore, commanders should focus on the result of actions instead of focussing on method. Their doctrine warns subordinate commanders for executing activities that do not contribute to the desired end

state. To assist the commander and subordinates, the Belgian doctrine emphasize the use of the same terminology in assigning missions.³¹

The comparison between this doctrine and Moltke's shows that Belgian doctrine tries to adapt the original principles. However, the main Belgian focus remains on the tactical level and imposing the same tactical language doctrinally, while Moltke mainly wants his operational commanders to understand the mission and clearly explain the mission without refraining himself to a specific language. Moltke assumes that high developed officers are capable in providing obvious guidance to their subordinates out of uncertainty. Such overemphasis on vocabulary can work stigmatising.³² Notwithstanding this critique, a specific language facilitates discussions amongst military commanders so orders can easily be understood and executed. Furthermore, this doctrine assumes the aspect of responsibility but does not mentioned it explicitly.

However, the main comment on their doctrine resides in the political-strategic situation of the Belgian Army. How can commanders perform actions in an uncertain environment, according to a mission command philosophy if the political world does not accept the risk for casualties inherent to military operations? Such an environment will restrain commanders in executing their mission.

Factors that influence mission command philosophy

The study of different doctrines reveals differences between countries' armies and interpreting mission command. Despite these variances, all Western armies suffer from external factors that affect the application of mission command. The following paragraphs study certain of those influences, categorized as follows: the civil-military

relationship, the political-military relationship, the nature of contemporary operations, and technology.

The civil-military relationship

One of the first significant influences on the military arises from its relationship with society. As derived from Clausewitz' trinity, changes in society will affect the military. Indeed, Western society changed significantly during the twentieth century, compared to Moltke's era. The nineteenth century officer was brought up according to specific military values such as: courage, honor, sacrifice, and skill at arms. Although those values still exist within the armies, like the US Army warrior ethos, societal changes challenge the core of that ethos.³³ Indeed, under the term "political correctness", the armies received specific directives to incorporate and embrace new behavior, such as sensitivity training comprising compassion, understanding and building friendship. Furthermore, the tendency for contracting inhibits unit cohesion as this goes against the *esprit de corps* or group cohesion philosophy. These factors have influenced the implementation of mission command during operations. It prevents commanders from undertaking daring missions in fear those missions do not correspond to certain standards or for fear of casualties among one's own soldiers or the contracted personnel. Western society has become very sensitive about taking casualties. In a quickly evolving, economical and result based society, people expect that the military deliver low-cost and swift results. These factors put pressure on senior and junior military commanders, hence they lean towards toward risk aversion.³⁴

Furthermore, in a culture of blame and a tendency towards litigation reinforces such fear for taking casualties. Both undermine significantly the organizational culture

that fosters mission command and its application. Often, media broadcast simplified messages and look for the “fall guy” or someone to blame. Such activities destabilize relationships based on trust and mutual understanding, and prevent that superiors accept unintentional mistakes by their subordinate. On the other hand, a subordinate becomes paralyzed when his superior makes a mistake, as he avoids taking the risk by assuming the mission in the absence of directives. In a loyal and honest relationship, a subordinate will mitigate his commander’s mistake if he understands the operational environment.³⁵ In addition, such a litigious culture further inhibits mission command. In case a commander concludes that an action might result in legal prosecution, this commander has two options. He may plan with a high level of detail, leaving limited freedom to his subordinates, or he may plan in such vague terms that he cannot be held accountable.³⁶ All these factors weaken the social dynamic between commanders within the concept of mission command.

Commanders should be aware of those pitfalls within society and maintain to embrace a culture of trust and understanding, combined with a belief in taking initiative and accepting that sometimes actions can go wrong as war is conducted in uncertain circumstances.

Remarkably, Shamir opines that both military and political leaders underestimate the public’s resilience for taking casualties. He argues that if a conflict is perceived as just, the willingness for sacrifice remains similar to that in previous periods in history.³⁷ This means, that in true wartime circumstances with significant interests at stake, society will accept casualties and risk.

The political-military relation

The preceding discussion demonstrates the complex relationship between society and the military. The second relationship that affects the application of mission command comes from the relationship between political leaders and the military organization.

The suspension of conscription and the reducing number of reserve units in Western armies altered the understanding between political leaders, civil military advisors and military. Indeed, in many western armies, ministers of defense or their senior civilian advisors have not experienced the army from within and do not have significant expertise in military affairs besides theoretical or academic study. Such limited comprehension might create friction and misunderstanding on the preferred military *modus operandi*.

More important, however, is how those political authorities employ and direct an army in combat. The political world does not always know how to use the military in the most effective way, especially if its knowledge in military affairs remains limited. During the Lebanon war in 2006, Israel's political and military strategic leadership failed to define a clear mission or to describe the operational objectives to the army commanders. When Prime Minister Ehud Olmert and General Dan Halutz, Chief of Staff of the Israel Defense Forces from June 2005 to June 2007, recognized that the Hezbollah could not be defeated by air power alone, they ordered a land campaign. Though the Israeli army did not perform to the standards exhibited in previous operations, the failure of the campaign resides mainly on the political–strategic level.

Lieutenant General Halutz was a firm believer of the effects based approach to operations doctrine, which resulted in a strategy of precision bombing and limited ground

operations. Halutz focused on “efforts to secure a consciousness of victory and to deliver to Hezbollah a cognitive perception of defeat.”³⁸ Army commanders struggled with such an intent and kept on asking Halutz to provide more resources, guidelines and freedom to maneuver. Halutz’ imposed raid method failed on numerous occasions to reach operational objectives and units became more focused on casualty prevention than on the fight itself. For example, during the capture of Bint J’Beil, at least one company per battalion was dedicated to the evacuation of casualties instead of actual combat mission.³⁹

Thirdly, promotion systems can inhibit mission command philosophy. Nowadays, military systems predominantly reward efficiency and control rather than professional competence. Political pressure for low casualties and the restrictive framework of a politically decided defense budget direct military leadership to a more figured approach. Thus military policy makers tend to retain control of their subordinates, rather than decentralizing authority. According to Shamir, a RAND study from 2007 confirmed that promotions are based on position availability rather than performance, and to acquire a promotion officers must have served in certain type of assignments.⁴⁰ “We [the US Army] talk about initiative and agility but we reward officers who follow a rigidly prescribed path to success . . . We don’t reward risk takers . . . Officers are often told ‘to do what they are told and not ask questions.’”⁴¹ The reaction of General Halutz during the Israël-Lebanese war of 2006 illustrates this point. In the absence of immediate results and though his major subordinate commanders asked for more troops, he replaced the northern sector commander, Lieutenant General Udi Adams, with his personal

representative, Major General Moshe Kaplinsky.⁴² Such promotion systems do not cultivate a mission command philosophy based on trust and mutual understanding.

Finally, the actions of a soldier can have strategic impacts in the current operational environment. Indeed, the mistake made by US soldiers in Afghanistan when burning desecrated Korans had an impact on the whole mission and numerous spontaneous demonstrations and riots broke out. Senior military and political leadership, including President Obama had to intervene. In such situations, politicians will show a tendency to micromanage the military force, hence again prohibiting mission command.

The nature of contemporary operations

The operational environment in which forces operate changed significantly since the end of the Cold War era. Where previously military forces prepared themselves for major combat based on maneuver warfare, they now found themselves in a more static environment. During maneuver warfare, higher commands focused on the mobility of the force, while deploying formations over wide distances and within constantly changing circumstances. Following Moltke's example, those commanders were forced to decentralize, as they did not had the ability to command from a single focal point. Though the current operational environment became very fluid, can shift rapidly on tactical level, and requires small units to work in a very decentralized manner, on the operational level the environment hardly changes. Long term planning and the fact that few actions occur at the operational level result in higher commanders' micromanagement of their proper battle space.

The events that occurred in the Wanat Valley in the summer of 2008 demonstrate such detailed supervision. Colonel Ostlund, commander of the 2nd Battalion of the 503rd

Airborne Infantry Regiment, wanted to move a combat outpost in order to improve situational awareness and control in his assigned area of responsibility. To do this, Ostlund had to seek approval two levels up, namely the commander of the Combined Joint Task Force-101. Moreover, prior to this, he had to brief his brigade commander on the details of the operation, including weather, fire support, engineer details, location of command posts, and risk assessment.⁴³ Although hindsight suggests that the decision to move remains questionable, this methodology demonstrates a command climate in which initiative can hardly prevail.

Paradoxically, the current nature of operations and forces favorize decentralized operations. The facts that forces have become smaller, that the geographical dispersion of units has increased and that communication means have improved significantly push those commanders to decentralize more than they did during previous operations. Moltke considered similar elements to decentralize when he planned his operation against Austria.

Additionally, the opponent changed to an asymmetric threat, whose actions cannot be predicted. The enemy surprised Western forces on different occasions with new weapons systems, such as Improvised Explosive Devices or Explosively Formed Projectiles to inflict a maximum of casualties. An army can only react to this if it cultivates a climate in which the subordinate commander displays initiative and creativity to counter the attacks of the opponent.⁴⁴

The influence of technology

The final factor that affects mission command includes the technological developments since the 1990s. Today's technological innovations can assist mission command philosophy, but also obstruct it completely.

Proponents of technology will argue that technological developments improve command information management, increase situational awareness and reduce the fog of war. However, this increased situational awareness can have undesired side effects. Indeed, by reducing chance and friction on a higher level, commanders can no longer display mission command. They have such a degree of understanding that they can render junior officers to merely executors depending on the information from the higher command. Micromanagement can create a generation of officers who lack local initiative because their higher command permanently assisted and guided them.⁴⁵ American, British and Israeli experience during the previous operations confirmed this propensity towards micromanagement.⁴⁶

Today, it has become possible to follow a soldier's actions in time and space in real time. Thus, leaders have now the ability to interfere in actions of small units. However, such interference is ineffective. Politicians often demand that their commanders inform them immediately on the actions they will take. Jim Storr opines that commanders who have to contact their nations' politicians prior to undertake a tactical mission, lose flexibility and tempo.⁴⁷

The challenge for modern armies and commanders resides in finding the right balance between technological assistance to command and control systems and creating a culture that continues to embrace trust and decentralization. Currently, many command

and control systems orient towards a bottom-up through-put of information. On the other hand, assessed information barely returns to the small unit commander, leaving him uncertain about the result of his action. Such command and control systems show the inherent structure of a military organization: centralized around one commander with high degree of control.⁴⁸

To sum up, armies should develop doctrinal tools to prevent technology from becoming a micromanagement tool that hampers a mission command philosophy. However, societies who above all embrace technology as the solution to problems will find it difficult to incorporate a philosophy based on human interaction.

Conclusion

This chapter tried to explain the different approaches towards mission command and factors that impact that concept. The study of command doctrine in different western armies shows that theoretically Moltke's principles remain valid. The Shamir model provides a visualization to understand the problems that occur when interpreting and applying a foreign military doctrine. The main issue within the studied armies remains the effective application of mission command. Such a study would require further in depth surveys and analysis of cultural and organizational factors.

Moreover, the divergent views and doctrinal descriptions of mission command must force commanders to think critically on their own command style. Every commander can learn from studying the different views on mission command. Eventually, a commander assumes his responsibility and is accountable for the way he implements mission command. In a multinational environment, commanders should understand their audience, who might have a divergent view on mission command.

Although this study focused primarily on Western armies with different operational experiences, culture and political-social environment, it remains helpful to understand the common factors that affect the application of mission command. The civil-military and the political-military relationship affects one's command style significantly, probably even more than technology. Presumably, those three factors relate to each other. On the other hand, the nature of current operations create the conditions to enhance the application of mission command.

In summary, mission command has three enduring tenets: timely decision making based understanding a superior commander's intention and the environment, initiative and a clear responsibility on all levels to fulfill the mission.

¹Bruce Condell and David T. Zabecki, *On the German Art of War: Truppenführung* (Boulder, CO: Lynne Rienner, 2001), 5.

²Jörg Muth, *Command Culture—Officer Education in the US Army and German Armed Forces, 1901-1940, and the Consequences for World War II* (Denton, TX: University of North Texas Press, 2011), 173.

³Eitan Shamir, *Transforming Command—The Pursuit of Mission Command in the US, British, and Israeli Armies* (Stanford, CA: Stanford University Press, 2011), 5.

⁴*Ibid.*, 6-7.

⁵Robert H. Scales, *Certain Victory: The US Army in the Gulf War* (Dulles, VA: Brassey's Editorial Offices, 1993), 6-38; excerpt reprinted in US Army Command and General Staff College, *H300 Book of readings* (Fort Leavenworth, KS: USACGSC, November 2011), 334-335.

⁶Shamir, *Transforming Command*, 48.

⁷Department of the Army, ADP 3-0, *Unified Land Operations* (Washington, DC: Department of the Army, October 2011), 5.

⁸*Ibid.*, 6.

⁹*Ibid.*, 13.

¹⁰Department of the Army, ADRP 6-0, *Mission Command* (Washington, DC: Department of the Army, September 2011), 3-2.

¹¹Department of the Army, ADRP 3-0, *The Army in Unified Land Operations* (Washington, DC: Department of the Army, September 2011), 2-10.

¹²Department of the Army, ADRP 6-0, *Mission Command*, 1-3.

¹³Vincent Desportes. *Décider dans l'incertitude*, trans. by Mac Daniel Joanna (Paris: Economica, 2007), 74.

¹⁴*Ibid.*, 80.

¹⁵*Ibid.*, 80-81.

¹⁶United Kingdom, Ministry of Defense, *Army Doctrine Publication–Operations* (UK, Wiltshire-Swindon, Development Concepts and Doctrine Center, November 2010), 6-9.

¹⁷*Ibid.*, 6-12.

¹⁸*Ibid.*, 6-12 to 6-15.

¹⁹R. R. Davis, “Helmuth von Moltke and the Prussian-German Development of a Decentralised Style of Command: Metz and Sedan 1870,” *Defence Studies* 5, no. 1 (March 2005): 94.

²⁰*Centre de Doctrine et d’Emploi des Forces* (CDEF) is a French military institution comparable to US Training and Doctrine Command, except that its role is limited to unite all efforts and capabilities of the Army in the area of doctrine.

²¹Vincent Desportes, *Décider dans l'incertitude*, 8.

²²*Ibid.*, 47-51.

²³*Ibid.*, 64-65.

²⁴France, Ministry of Defense, FT-05, *The Tactical Commander’s Guide to Command and Control Operations*, trans. by Alain Boy, and Kelly Carrigg (Paris, France: Centre de Doctrine et d’Emploi des Forces, November 15, 2011).

²⁵*Ibid.*, 21.

²⁶*Ibid.*, 23.

²⁷*Ibid.*, 24-25.

²⁸UNAMIR: United Nations Assistance Mission for Rwanda

²⁹Belgium, Belgium Defense Forces, ACOT- TAM-BGDMP-LSC-001, *The Decision Making Process at Battle Group Level* (Brussels: ACOS Operations and Training, Doctrine and Requirements, 2011), 31.

³⁰*Ibid.*

³¹*Ibid.*, 32.

³²Moltke, *War Lessons, Volume IV, Part II*, 20 and 27.

³³The ethos for American soldiers is: “I will always place the mission first, I will never accept defeat, I will never quit, I will never leave a fallen comrade.” Department of the Army, FM 1, *The Army* (Washington, DC: Department of the Army, June 2005), 39.

³⁴Shamir, *Transforming Command*, 159.

³⁵Jim Storr, “A Command Philosophy for the Information Age: The continuing relevance of mission command,” in *The Big Issue: Command and Combat in the Information Age*, ed. by David Potts (Washington, DC: CCRP Publication Series, 2003), 124-125.

³⁶*Ibid.*, 125.

³⁷Shamir, *Transforming Command*, 159.

³⁸Matt M. Matthews, *We Were Caught Unprepared: The 2006 Hezbollah-Israeli War*, Occasional Paper 26 (Fort Leavenworth, KS: US Army Combat Studies Institute, 2006), 45.

³⁹*Ibid.*, 47.

⁴⁰Shamir, *Transforming Command*, 165.

⁴¹*Ibid.*

⁴²Matt M. Matthews, *We Were Caught Unprepared: The 2006 Hezbollah-Israeli War*, 48.

⁴³Staff of the US Army Combat Studies Institute, *Wanat: Combat Action in Afghanistan, 2008* (Fort Leavenworth, KS: US Army Combat Studies Institute Press, 2006), 53-54.

⁴⁴Storr, “A Command Philosophy for the Information Age: The continuing relevance of mission command,” 124.

⁴⁵Shamir, *Transforming Command*, 167.

⁴⁶*Ibid.*, 186-189.

⁴⁷Storr, “A Command Philosophy for the Information Age: The continuing relevance of mission command,” 123.

⁴⁸Shamir, *Transforming Command*, 167.

CHAPTER 5

CONCLUSIONS AND RECOMMENDATIONS

In war everything is uncertain as soon as operations commence, except
that which the commander-in-chief carries himself in will and energy
—Helmuth von Moltke, *War Lessons, Volume IV, Part II*

Conclusions and relevance

This study started with the question whether the term “mission command” is still relevant with regard to its historical context. Actually, Moltke laid the foundations for mission command similar to what many Western armies have incorporated in their current doctrine: provide timely crystalline directives based on a broad understanding of environment, rely on initiative and assume responsibility within an organization that embraces trust.

This analysis of the nineteenth century circumstances surrounding Moltke’s command concept provided information to understand today’s doctrine and relevance of mission command. Whatever specific tactics military formations use on the battlefield, enduring operational and leadership principles constitute the core of mission command philosophy. Moltke demonstrated the relevance of educated, critical officers capable of understanding the environment in which they operated and who can apply analysis to find an answer for the problems they faced. Today’s operational environment forces commanders to demonstrate the same level of creativity enabling them to provide solutions for the challenges they face. A non-dogmatic thinking enemy without clear patterns and the variable terrain directs commanders to more adaptive command methods.

Moreover, the unclear political and social environment forces commanders to take initiative in order to achieve the desired strategic political and military endstate.

However, one should use caution when studying these historical principles. Undeniably, the strategic situation of Prussia, namely the fact that Moltke fought one opponent at a time, with a clear unified strategy and new combined arms tactics to defeat that opponent, created the circumstances in which Moltke could manifest his success. What is more, the organizational culture in the aftermath of Jena made it possible to change. Napoleon created such disruption of the Prussian military society that they had to search for new answers to reconstitute their organization. So, can the military community transfer certain of Moltke's principles to the twenty-first century without making adjustments? The answer to that question is undoubtedly: yes. First, nineteenth century commanders faced significant command and control problems. The wide distances, large formations, political relationships and limited technological assistance laid the foundation for new command style and reduced the use of a directive command style on operational level. Moreover, like Clausewitz, Moltke accepted friction and uncertainty in war. Every situation requires another solution. Changing or uncertain strategic, operational and cultural factors necessitates a permanent evaluation to adapt to the situation. Like Moltke's adaptability to implement the improvements of the industrial age, modern officers must prove their ability to adjust to the circumstances of the informational age in the twenty-first century. Such thinking method will cause officers to explore more options, especially on operational and strategic level. Open-minded thinking generates opportunities to change an organization at all levels when confronted with new

challenges. Moltke's emphasis on showing adaptability remains a fundamental belief that military should foster.

During this study, it has become obvious that instituting a common definition for *Auftragstaktik* remains very difficult. Cultural and organizational differences between armies prevent a unified definition. Moreover, a unique set of words would only limit a philosophical approach. Within an international environment and a unified action context, commanders have to display the skills to explain mission command philosophy. Although this may require time, it prevents delays, misconception and confusion amongst partners.

Furthermore, commanders should understand the factors that affect mission command. The interplay of the civilian political environment with its military organization, as described by Clausewitz, influences mission command significantly, yet such an environment may not paralyze commanders from taking necessary action when facing a problem. On the contrary, the nature of current conflicts leads commanders towards adopting a decentralized command style. Though some will argue that technology prevents mission command by making centralized control too easy, it is up to commanders how they employ such new technological innovations. Technology may assist commanders in employing an effective mission command philosophy. Moltke's actions demonstrate that the method to employ a certain technology weighs more important than the technology itself. Notwithstanding this argument, a systems based approach might have a negative impact on mission command and may hinder commanders from demonstrating initiative.

To sum up, this study demonstrates that Moltke's command methodology associates with a more modern language and leadership framework. His command style

relates to empowering subordinates. Indeed, empowerment includes the same elements as discussed in chapter 3 and the beginning of this paragraph. In the book *Empowerment Takes More Than a Minute*, the authors, Ken Blanchard, John P. Carlos, and Alan Randolph, argue that organizations need to develop three keys to improve the capabilities of their personnel, hence the organization as whole. First, share information with everyone, secondly, create autonomy through boundaries and finally, replace the old hierarchy with self-managed teams.¹

Sharing information within the organization offers subordinates a clear picture of the organization itself and its current situation. By allowing all employees to view the company information, a leader develops trusts. Secondly, establishing a climate that fosters open communication creates the opportunity for subordinates to frame the boundaries in which subordinates can assume responsibility. The third key to empowerment is replacing the old hierarchy with self-regulating teams, demonstrating responsibility and initiative.

Obviously, a large and diverse organization like an army struggle with the implementation of such seemingly simple principles, yet mission command provides the best solution for the current, complex operational environment. It will require time to implement and to create an organizational culture that embraces mission command and it will entail pragmatism to endure its application.

Recommendations

Now that the relevance of mission command has become clear, I would like to make certain recommendations to the military community.

First of all, effective and efficient employment of mission command demands leadership and units with sufficient training. Though all military commanders will acknowledge this, it remains valuable to repeat and emphasize this again. Trained formations in which all members understand each other will generate a true mission command environment more. Training creates trust amongst each other and comprehension about the strengths and shortfalls of commanders and the organization. One of the reasons for the success of the Prussian Army resided in its effective training. Officer training should focus on organizing staff rides that not only analyze the battles itself, but more importantly, also study the geo-political environment, the political-military strategic situation, the underlying socio-political relationship, the effects on long term and the leadership aspects of a commander. Additionally, military units should spend time on educating officers on wider topics than the purely military. Demanding that your officers discuss current political, social or cultural events during small seminars helps the development of organizational leaders.

Secondly, armies should invest in the education of all their officers to provide them the background for creative and critical thinking. Broad based education will ensure that an army has sufficient officers who understand the environment in which they operate, instead of depending on a limited number of elite officers. An erudite school system increases the level of thought of many officers. Moreover, education should not only focus on military science, but should also incorporate history, socio-economic themes, etc. Such an educational system enlarges the competences of officers to understand the environment in which they operate and enables them to perform the multiple tasks during stability operations.

Thirdly, mission command or decentralization cannot grow within the military without trust and a relationship grounded on an open dialogue. This is true for all levels of the organization, building a confident relationship between political and military leadership, establishing trust within the organization and fostering trust on team level. Trust can only grow if the organization accepts mistakes and then learns from its mistakes. This relates to commanders who have to assume responsibility, who delegate responsibility and who have to accept risk as part of their function, two factors that remain absent in many doctrines. Military organizations should incorporate risk acceptance and responsibility in their operational doctrine and not only in leadership doctrine.

Fourthly, adopting effective mission command in a multinational environment depends on different factors. Commanders should study the different interpretations of the mission command philosophy of their multinational partners. Without understanding each other's underlying assumptions and espoused beliefs and values, commanders can take wrong decisions or interpret the behavior of his partner differently. Communicating with each other improves such understanding. For the same reason, commanders should clearly state what they expect or not from their subordinates within an international mission command framework. However, such relationship should be bidirectional. From a practical standpoint, commanders should preserve a period to request a back brief, during which the subordinate explains how he wants to achieve the objective of his higher commander or to explain how he interpreted the commander's end state. Notwithstanding this brief, the senior commander should refrain from micromanaging.

Above all, an army must practice what it preaches, in other words the organizational culture itself must sustain an ethos of mission command based on trust and open dialogue. Mission command can only be possible if the social, political background supports this type of command style.

Only this way a military organization can keep Moltke's legacy alive.

¹Ken Blanchard, John P. Carlos, and Alan Randolph. *Empowerment Takes More Than a Minute* (San Francisco, CA: Berrett-Koehler Publishers, 2001).

GLOSSARY

Accountability is the requirement for commanders to answer to their superiors (and finally the American people) for mission accomplishment, for the lives and care of their Soldiers, and for effectively using Army resources.¹

Auftragstaktik or mission oriented command system. A key component of the German command system was the wide latitude given to officers in executing a tactical mission. The senior commander would issue an oral mission order which clearly defined his intent and desired end state, while leaving the means of executing the mission to the junior leader.

Authority is the delegated power to judge, act, or command.²

Blitzkrieg is the use of offensive tactics based on combined arms, mobility and penetration and was first used by the German units at the start of World War II.

Command is the authority that a commander in the armed forces lawfully exercises over subordinates by virtue of rank or assignment. Command includes the authority and responsibility for effectively using available resources and for planning the employment of, organizing, directing, coordinating, and controlling military forces for the accomplishment of assigned missions. It includes responsibility for unit readiness health, welfare, morale, and discipline of assigned personnel.³

Commander's intent is a clear, concise statement of what the force must do and the conditions the force must meet to succeed with respect to the enemy, terrain, and desired end state.⁴

Control is the regulation of forces and warfighting functions to accomplish the mission in accordance with the commander's intent.⁵

Esprit de corps a French term that refers to the climate and culture (espoused beliefs and values, artifacts), of a group of people, organization or unit in order to accomplish the task set forth.

Feldzeugmeister is the equivalent military rank to lieutenant general which was mainly used by German speaking armies between the 16th and the 19th century.

Hybrid threat is the diverse and dynamic combination of regular forces, irregular forces, terrorist forces, criminal elements, or a combination of these forces and elements all unified to achieve mutually benefitting effects.⁶

Initiative is the willingness to act in the absence of orders, when existing orders no longer fit the situation, 139 or when unforeseen opportunities or threats arise.⁷ Operational initiative is setting and dictating the terms of action. Individual

initiative is the willingness to act in the absence of orders, when existing orders no longer fit the situation, or when unforeseen opportunities or threats arise.⁸

Kadavergehorsam is blind obedience to an authority. This blind obedience is often accompanied with violence or under fear of receiving a fierce punishment.

Kriegsakademie is the name given to the German Staff College, currently located in Hamburg.

Landwehr is the name for the Prussian-German reserve forces who were activated in the event of crisis or wartime. They trained a number of days each year.

Leadership is the process of influencing people by providing purpose, direction, and motivation, while operating to accomplish the mission and improve the organization.⁹

Levée en masse is a French term for the mobilization of an entire nation to protect the vital interests of nation or the defeat an imminent threat on a nation. This terminology got introduced during the French Revolution and the Napoleonic campaigns.

Medium forces are land tactical forces mounted in tracked or wheeled vehicles with two specific characteristics: battlefield mobility and operational agility. These forces form an intermediate step between armored and light forces. They have less protection and organic direct firepower than heavy forces but more protection and greater tactical and operational mobility than light forces in close terrain.¹⁰

Mission Command is the exercise of authority and direction by the commander using mission orders to enable disciplined initiative within the commander's intent to empower agile and adaptive leaders in the conduct of unified land operations.¹¹

Mission Orders are a technique for developing orders that emphasizes to subordinates the results to be attained, not how they are to achieve them. It provides maximum freedom of action in determining how to best accomplish assigned missions.¹²

Oberst is the German equivalent to a US Colonel (OF-5).

Panzergruppe was the name the German Army gave to large armored formation during World War II. This formation consisted of several corps.

Responsibility is the obligation to carry forward an assigned task to a successful conclusion. With responsibility goes authority to direct and take the necessary action to ensure success.¹³

Situational Awareness is the immediate knowledge of the conditions of the operation, constrained geographically and in time.¹⁴

Situational Understanding is the product of applying analysis and judgment to relevant information to determine the relationships among the mission variables to facilitate decision making.¹⁵

Stosstruppen is the German name given to a specific type of army unit during World War I and II. They were small, highly trained infantry units supported by enormous firepower to break through enemy defensive positions. These assault squads consisted usually of eight men commanded by a noncommissioned officer. They were equipped with a variety of weapons, such as mortars, machine guns, grenades, flamethrowers, pistols, carbines to increase the squads firepower.¹⁶

Truppenführung is the German Army philosophy of leadership in battle which incorporated Prussian-German tradition modified by the Great War experience and General von Seeckt's leadership philosophy. The regulation stressed the importance of the leader's decisive actions to seize the initiative and take the fight to the enemy, regardless of terrain, weather or fatigue. It incorporated one of the key leadership lessons from the Great War: the need to decentralize mission execution responsibility to junior leaders in order to overcome battlefield frictions.

Warfighting function is a group of tasks and systems (people, organizations, information, and processes) united by a common purpose that commanders use to accomplish missions.¹⁷

¹Department of the Army, ADRP 6-0, *Mission Command* (Washington, DC: Government Printing Office, September 2011), 2-5.

²Department of the Army, ADRP 6-0, *Mission Command*, 2-5.

³Department of the Army, ADRP 3-0, *The Army in Unified Land Operations* (Washington, DC: US Army, October 12, 2006), 2-10.

⁴Department of the Army, FM 5-0, *The Operations Process* (Washington, DC: Government Printing Office, March 26, 2010), 2-15.

⁵Department of the Army, ADRP 6-0, *Mission Command*, 2-11.

⁶Department of the Army, ADP 3-0, *Unified Land Operations* (Washington, DC: Government Printing Office, October 2011), 4.

⁷Department of the Army, ADRP 6-0, *Mission Command*, 2-3.

⁸Department of the Army, ADP 3-0, *Unified Land Operations*, 2-1.

⁹Department of the Army, FM 6-22, *Army Leadership - Competent, Confident, and Agile* (Washington, DC: US Army, October 12, 2006), 1-2.

¹⁰Belgium Defense Forces, ACOT-TAM-MINFCIE-LSC-001, *Het tactisch gebruik van de Medium Infanterie Compagnie* (Brussels: ACOS Operations and Training, Doctrine and Requirements, 2011), 11.

¹¹Department of the Army, ADP 3-0, *Unified Land Operations*, 6.

¹²Department of the Army, ADRP 6-0, *Mission Command*, 2-4.

¹³Department of the Army, FM 6-22, *Army Leadership-Competent, Confident, and Agile*, Glossary-4.

¹⁴Department of the Army, FM 3-0, C1, *Operations* (Washington, DC: Government Printing Office, February 22, 2011), 6-13.

¹⁵Department of the Army, FM 5-0, *The Operations Process*, 1-8.

¹⁶Timothy T. Lupfer, “The Dynamics of Doctrine: The Changes in German Tactical Doctrine During the First World War” (Fort Leavenworth, KS: US Army Combat Studies Institute, July 1981), 43-44.

¹⁷Department of the Army, ADP 3-0, *Unified Land Operations*, 13.

APPENDIX A

HELMUTH VON MOLTKE “*DER GROSSE SCHWEIGER*”: BIOGRAPHY



Field marshal Helmuth Karl Bernhard, Count von Moltke

Source: <http://www.britannica.com/EBchecked/topic/388540/Helmuth-von-Moltke>
(accessed February 28, 2012)

Helmuth Karl Bernhard Graf von Moltke was born on October 26, 1800, at Parchim, Mecklenburg-Schwerin, a Prussian grand duchy in northern Germany. Amongst military and strategic leaders of the nineteenth century, he probably remains one of the most influential personalities. Not only did he change the way the army fought and lay the foundations for the successful German Army in the twentieth century, he also affected the Prussian military education and society.

Moltke stemmed from a modest German noble family, with profound military roots. In 1805, his father bought an estate in Augusterhof in Holstein, Denmark, and took Danish nationality to be eligible to acquire the property. Helmuth grew up learning the

Danish and German languages and entered as a cadet at the Military Academy at Copenhagen. At the age of nineteen he was appointed second lieutenant and got an assignment in the Oldenburg Infantry Regiment.¹

After a short trip to Berlin and a talk with his father, he decided to join the Prussian army. In 1822, he passed the examination and joined an army in reform. Field Marshal Graf von Gneisenau served as one of the presidents of the examination board, and noticed the bright young officer.² The Prussian army stationed Moltke in Frankfurt-on-the-Oder with the 8th Infantry Regiment. In 1823, Moltke started the Staff College in Berlin, where he excelled in history, geography, physics and languages. These studies built his analytical capabilities furthermore and the ability to build international relationships. After his studies at the academy, he rejoined his regiment.³

In 1832, Moltke got an appointment to the General Staff at Berlin and became first lieutenant. In recognition for his work and merits to the General Staff, he received the Order of Saint John, *Der Johanniterorden*, the highest esteemed order in the Prussian military, and by 1834 he surpassed many of his peers when he got an accelerated promotion to captain.⁴

Helmuth von Moltke's quest to broaden his competences drove him to Turkey in 1835, where he experienced his first combat actions. He first became a Confidential Advisor within the Turkish government, and assisted the Turkish Army with their reorganization and the introduction of Prussian military system. When the Turkish army went into combat against the Kurds, Moltke's advice was often neglected, resulting in Turkish defeat. Yet, this war experience became an invaluable lesson to Moltke, as the Prussian Army hasn't obtained any combat experience since 1815. Instead of a purely

theoretical study of warfare, he now possessed practical experience that made him more capable for future assignments. After the Turkish debacle in 1839, the Prussian General Staff recalled him to Berlin.⁵

From 1840, the staff of the IV Corps at Coblenz became his new unit. In 1842, he received promotion to major and got married. As personal assistant to Prince Henry of Prussia, he worked in Rome from 1845 to 1846. He returned to IV Corps as Chief of Staff, where his main duties consisted in supervising troops, preparing for maneuvers and exercises, managing supplies, and conducting intelligence. More importantly, the preparation of the corps war plans resided among his main responsibility.⁶ From 1846 to 1855, Moltke encountered all problems and issues that came along with mobilizing and moving an army. More specifically, the political turmoil of 1848, in which liberal politicians attempted to reduce the influence of the royal family, and the confrontation with Denmark in 1848 proved to him the Prussian military reform was not completed yet. During that period he rose to colonel.⁷

In 1855, Prussian King Frederick Wilhelm IV appointed him personal adjutant to his brother, crown prince Friedrich Wilhelm. This gave him the opportunity to expand his relationships and to learn the functioning of the state. The events that occurred in October 1857 changed his career drastically. The current General Staff chief, General Reyher, died on October 7, 1857 and Prince Wilhelm became regent for his ill brother. One of the youngest major-generals of the Prussian Army, without brigade or division command experience, assumed the office of Chief of the General Staff of the Prussian Army on October 29, 1857.⁸

As Chief of Staff between 1857 to 1888, Moltke continued to implement change in the Prussian army, and conducted successful campaigns against Denmark in 1864, Austria in 1866 and France in 1870. He had the ability to combine military conservatism, such as his loyalty to the King and military values, with implementing technological innovations, like the telegraph and railroad system, and new strategic and tactical concepts based upon Clausewitzian theory.⁹

In recognition for his merits to the Prussian army and the German unification, Moltke was rewarded with the title of Count, and promoted to field marshal. He retired on August 9, 1888, and passed away on April 24, 1891.

¹Frederick E. Whitton, *Moltke* (London: Constable and Company Ltd., 1921), 5.

²*Ibid.*, 23.

³To obtain more information on Moltke's early years, Daniel J. Hughes refers in *Moltke on the Art of War: Selected Writings* (New York, NY: The Random House Ballantine Publishing Group, 1993) page 3 to the biography made by William O'Connor Morris, *Moltke: a Biographical and Critical Study* (New York, NY: Haskell House Publishers Ltd., 1971), 1-12.

⁴Whitton, *Moltke*, 30.

⁵*Ibid.*, 32.

⁶Arden Bucholz, *Moltke and the German Wars, 1864-1871* (New York, NY: Palgrave, 2001), 41.

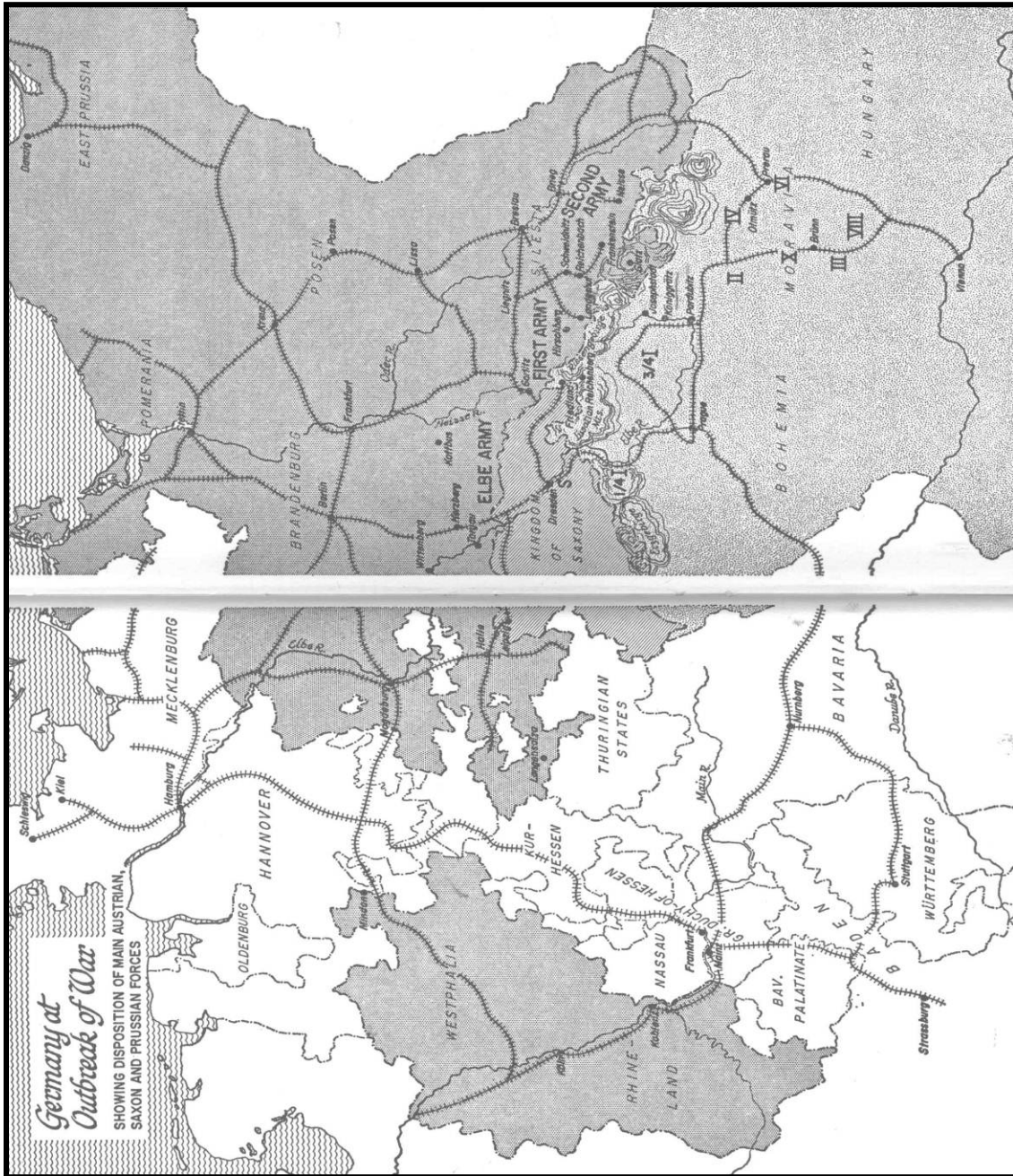
⁷Whitton, *Moltke*, 54-56.

⁸Bucholz, *Moltke and the German Wars, 1864-1871*, 49.

⁹Whitton, *Moltke*, 72.

APPENDIX B

STRATEGIC AND OPERATIONAL SITUATION OF PRUSSIA IN 1866



Strategic and Operational Situation of Prussia in June 1866

Source: Gordon A. Craig, *The Battle of Königgrätz, Prussia's Victory over Austria, 1866* (Philadelphia, NY: J. B. Lipincott Company, 1964; repr. Greenwood Press, 1975), 34-35.

APPENDIX C

EXAMPLES OF GENERAL DIRECTIVES GIVEN TO CORPS COMMANDERS

1. Berlin, July 30, [1870] 7.30pm: Telegram to Officer Commanding Third

Army, Speyer

His Majesty thinks it fitting the Third Army, as soon as the *Baden Württemberg* divisions have joined, should at once advance southwards on the left bank of the Rhine, seek the enemy, and attack him. By this means bridge building south of *Lauterburg* will be prevented and all South Germany most effectually protected.¹

2. HQ Mainz, August 3, [1870] 11am: Telegram to Prince Frederick Charles

Delayed advance of French allows hope that Second Army can be concentrated on August 6 in front of forest zone of *Kaiserslautern*. First Army will be brought on to-morrow to *Tholey*. Co-operation of both armies in battle. If swift advance of French cannot be prevented, in that event concentration of Second Army behind *Lauter*. First Army to *Baumholder*. Third Army will cross the border at *Weissenburg* to-morrow.²

3. Homburg, August 8, [1870]: Telegram to Officer Commanding First Army,

Völklingen, Officer Commanding Second Army, Blieskastel, Officer

Commanding Third Army, Sulz

His Majesty has ordered that all military messages, reports, and questions from the army commands to him must be addressed to me.³

¹Helmuth von Moltke, *Moltke's Military Correspondence 1870-1871*, ed. by Spenser Wilkinson (Oxford, UK: Oxford University Press, 1923), 59.

²*Ibid.*, 63.

³*Ibid.*, 77.

BIBLIOGRAPHY

Books

- Britt, Albert Sidney III. *The Wars of Napoleon*. Edited by Thomas E. Griess. Wayne: Avery Publishing Group, Inc., 1985.
- Bucholz, Arden. *Moltke and the German Wars, 1864-1871*. New York, NY: Palgrave, 2001.
- Chandler, David D. *Jena 1806-Napoleon Destroys Prussia*. Oxford: Osprey Publishing, 1993.
- Clausewitz, Carl von. *On War*. Edited and translated by Michael Howard and Peter Paret. Princeton, NJ: Princeton University Press, 1976.
- . *Principles of War*. Translated by Hans W. Gatzke. New York, NY: Dover Publications, 2003.
- Condell, Bruce, and David T. Zabecki, . *On the German Art of War: Truppenführung*. Boulder, CO: Lynne Rienner Publishers Inc., 2001.
- Craig, A. Gordon. *The Battle of Königgrätz-Prussia's Victory over Austria, 1866*. Reprinted by Greenwood Press Publisher in 1975. Philadelphia, NY: J.B. Lipincott Company, 1964.
- Desportes, Vincent. *Décider dans l'incertitude*. Translated by Mac Daniel Joanna. Paris: Economica, 2007.
- Fuller, F. C. John. *Generalship-Its Diseases and Their Cure* . Harrisburg, PA: Military Service Publishing Co., 1936.
- Hughes, Daniel J. *Moltke on the Art of War-Selected Writings*. New York, NY: The Random House Ballantine Publishing Group, 1993.
- Knox, MacGregor, and Williamson Murray. *The Dynamics of Military Revolution 1300-2050*. New York, NY: Cambridge University Press, 2001.
- Millotat, Christian O. E. *Understanding the Prussian-German Staff System*. Carlisle Barracks: Strategic Studies Institute, US Army War College, 1992.
- Moltke, Helmuth von. *Essays, Speeches, and Memoirs, ar Lessons, Volume I and II*. Translated by Charles F., Major C. Barter and Mary Herms McClumpha. New York: Harper and Brothers, 1893.

- . *Moltke's Military Correspondence 1870-1871*. 1991. Editor: Spenser Wilkinson. Oxford: Oxford University Press, 1923.
- . *Strategy; Its Theory and Application. The Wars for German Unification, 1866-1871*. Westport, CT: Greenwood Press Publishers, 1971.
- . *War Lessons, Volume IV, Part II*. Translated by Harry Bell. Berlin: The Great General Staff, Military-Historical Section I, 1911.
- Morris, William O'Conner. *Moltke: A Biographical and Critical Study*. New York, NY: Haskell House Publishers Ltd., 1971.
- Muth, Jörg. *Command Culture - Officer Education in the US Army and the German Armed Forces, 1901-1940, and the Consequences for World War II*. Denton, TX: University of North Texas Press, 2011.
- Paret, Peter. *Makers of Modern Strategy, from Machiavelli to the Nuclear Age*. Princeton, NJ: Princeton University Press, 1986.
- . *The Cognitive Challenge of War*. Princeton, NJ: Princeton University Press, 2009.
- Scheibert, Justus. *A Prussian observes the American Civil War: The military studies of Justus Scheibert*. Edited and translated by Frederic Trautmann. Columbia, MI: University of Missouri Press, 2001.
- Shamir, Eitan. *Transforming Command, The Pursuit of Mission Command in the US, British, and Israeli armies*. Stanford, CA: Stanford University Press, 2011.
- Storr, Jim. "A Command Philosophy for the Information Age: The continuing relevance of mission command." In *The Big Issue: Command and Combat in the Information Age*, edited by David Potts, 119-129. Washington, DC: CCRP Publication Series, 2003.
- Sun Tsu, *The Art of War*. Translated by Samuel B. Griffith. New York, NY: Oxford University Press, 1963.
- Wagner, Arthur L. *The Campaign of Königgrätz, A Study of the Austro-Prussian Conflict in the Light of the American Civil War*. Westport, CT: Greenwood Press Publishers, 1972.
- Wawro, Geoffrey. *The Austro-Prussian war: Austria's War with Prussia and Italy in 1866*. New York, NY: Cambridge University Press, 1996.
- Whitton, Frederick E. *Makers of the Nineteenth Century*. Edited by Basil Williams. Vol. Moltke. London: Constable and Company Ltd., 1921.

Willisen, Wilhelm. *Theorie des grossen Krieges: angewendet auf den russisch-polnischen Feldzug von 1831*. Berlin, 1831.

Periodicals

Davis, R. R. "Helmuth von Moltke and the Prussian-German Development of a Decentralised Command: Metz and Sedan 1870." *Defence Studies* 5, no. 1 (March 2005): 83-95.

Hoffman, Frank G. "Hybrid vs. compound war." *Armed Forces Journal* (October 2009). www.armedforcesjournal.com/2009/10/4198658 (accessed April 27, 2012).

Schmidtchen, David. "Developing creativity and innovation through the practice of mission command." *Australian Defense Forces Journal* no. 146 (January/February 2001): 11-17.

Sullivan, Patricia L., and Michael T. Koch. "Military Intervention by Powerful States, 1945–2003" *Journal of Peace Research* (September 2009). <http://jpr.sagepub.com/content/46/5/707> (accessed May 7, 2012).

Government Sources

Belgium, Belgium Defense Forces, ACOT-TAM-BGDMP-LSC-001, *The Decision Making Process on Battle Group Level*. Brussels: ACOS Operations and Training, Doctrine and Requirements, 2011.

———. ACOT-TAM-MINFCIE-LSC-001, *Het tactisch gebruik van de Medium Infanterie Compagnie*. Brussels: ACOS Operations and Training, Doctrine and Requirements, 2011.

———. ACOT-TAM-TABECIE-LSC-001, *Gids voor de tactische beoordeling op het niveau compagnie*. Brussels: ACOS Operations and Training, Doctrine and Requirements, 2011.

———. "Intelligence Preparation of the Battlefield in Crisis Response Operations." *Education textbook for the intelligence officer's course*. Heverlee: Belgian Intelligence and Security School, 2009.

France, Ministry of Defense. FT-05, *The Tactical Commander's Guide to Command and Control Operations*. Translated by Alain Boy, and Kelly Carrigg. Paris: Centre de Doctrine d'Emploi des Forces, November 15, 2011.

Germany, German Army. "Truppenführung (Troop leading)." *German Field Service Regulations*. Compiled by F. W. Milburn. US, October 17, 1933.

- United Kingdom, Ministry of Defense. *Army Doctrine Publication-Operations*. Wiltshire, Swindon: Development, Concepts and Doctrine Centre (DCDC), November 2010.
- United States, Chairman Joint Chiefs of Staff. JP 3-0, *Joint Operations*. Washington, DC: Government Printing Office, August 2011.
- United States, Department of the Army. ADP 3-0, *Unified Land Operations*. Washington, DC: Government Printing Office, October 2011.
- . ADRP 3-0, *The Army in Unified Land Operations*. Washington, DC: Government Printing Office, September 2011.
- . ADRP 6-0, *Mission Command*. Washington, DC: Government Printing Office, September 2011.
- . FM 1, *The Army*. Washington, DC: Government Printing Office, June 2005.
- . FM 3-0, C1, *Operations*. Washington, DC: Government Printing Office, February 22, 2011.
- . FM 5-0, *The Operations Process*. Washington, DC: Government Printing Office, March 26, 2010.
- . FM 6-0, *Mission Command*. Washington, DC: Government Printing Office, September 2011.
- . FM 6-22, *Army Leadership - Competent, Confident, and Agile*. Washington, DC: Government Printing Office, October 12, 2006.
- United States Military Intelligence. *German Military Training*. Washington: US Army Military History Institute, 1942.

Other Sources

- Blanchard, Ken, John P. Carlos, and Alan Randolph. *Empowerment Takes More Than a Minute*. 2nd ed. San Francisco, CA: Berrett-Koehler Publishers, 2001.
- Bradbeer, Thomas G. "Major General Cota and the Battle of the Hurtgen Forest: A Failure of Battle Command?" In *L200-Leadership Applied Book of Readings*, 15-39. Fort Leavenworth, KS: US Army Command and General Staff College, 2011.
- George, Franz F. *Decentralized Command and Control of High-Tech Forces-Aligning Practice with Doctrine at the Operation Level*. Newport: Naval War College, 2004.

- Griffin, Gary B. *The Directed Telescope: A Traditional element of Effective Command*. Fort Leavenworth: Combat Studies Institute, 1991.
- Holmes, Jeremy M. "Defining Adaptive Leadership in the Context of Mission Command." Master's Thesis, US Army Command and General Staff College, Fort Leavenworth, KS, 2011.
- Lupfer, Timothy T. "The Dynamics of Doctrine: The Changes in German Tactical Doctrine During the First World War." Fort Leavenworth, KS: Combat Studies Institute, July 1981.
- Matthews, Matt M. *We Were Caught Unprepared: The 2006 Hezbollah-Israeli War*. Occasional Paper 26, Fort Leavenworth, KS: Combat Studies Institute, 2006.
- Rosseels, Gunter. "Which of the theorists or practitioners studied in H100 offer the most useful insights for twenty-first-century warfare?" Unpublished argumentative essay on lesson block H100 - Rise of the Western Way of War. Fort Leavenworth, KS: US Army Command and General Staff College, 2011.
- Staff of the US Army Combat Studies Institute. *Wanat: Combat Action in Afghanistan, 2008*. Fort Leavenworth, KS: Combat Studies Institute, 2010.
- Scales, Robert H. *Certain Victory: The US Army in the Gulf War*, Dulles, VI: Brasseys Editorial Offices, 1993, 6-38. Excerpt reprinted in US Army Command and General Staff College, *H300 Book of Readings*, 333-353. Fort Leavenworth, KS: USACGSC, November 2011.
- Skinner, Allen H. "Transformation of the German Reichsheer." Master's Thesis, US Army Command and General Staff College, Fort Leavenworth, KS, 2006.
- United Nations, Department of Economic and Social Affairs-Population Division, "World Urbanization Prospects, the 2009 Revision" (March 25, 2010), http://www.un.org/News/briefings/docs/2010/100325_DESA.doc.htm (accessed May 7, 2012)

INITIAL DISTRIBUTION LIST

Combined Arms Research Library
U.S. Army Command and General Staff College
250 Gibbon Ave.
Fort Leavenworth, KS 66027-2314

Defense Technical Information Center/OCA
825 John J. Kingman Rd., Suite 944
Fort Belvoir, VA 22060-6218

Dr. House
Department of Military History
USACGSC
100 Stimson Ave.
Fort Leavenworth, KS 66027-2301

Mr. Cordes
Department of Tactic
USACGSC
100 Stimson Ave.
Fort Leavenworth, KS 66027-2301

Mr. Riggins
Department of Leadership and Organization
USACGSC
100 Stimson Ave.
Fort Leavenworth, KS 66027-2301

Royal Military Academy
Rennaissancelaan, 30
1000 Brussels
Belgium